Exhibit A, Part 3 of 3
to the
Declaration of Shawn G. Hansen
in Support of Visto's Motion to Stay Proceedings Relating to Research in Motion Limited's Patent Pending Reexamination

Request for Ex Parte Reexamination of U.S. Patent No. 5,889,839

Exhibit PAT-A

U.S. Patent No. 5,889,839

US005889839A

United States Patent [19]

Beyda et al.

[11] **Patent Number: 5,889,839**

[45] **Date of Patent: Mar. 30, 1999**

[54] **SYSTEM AND METHOD FOR PROVIDING AUTOMATED MESSAGE NOTIFICATION IN A WIRELESS COMMUNICATION SYSTEM**

[75] Inventors: **William J. Beyda**, Cupertino; **Shmuel Shaffer**, Palo Alto, both of Calif.

[73] Assignee: **Siemens Information and Communication Networks, Inc.**, Boca Raton, Fla.

[21] Appl. No.: **724,295**

[22] Filed: **Sep. 19, 1996**

[51] **Int. Cl.**[6] **H04M 3/42**; H04M 1/64

[52] **U.S. Cl.** **379/88.12**; 455/412; 455/413; 379/88.22; 379/88.25

[58] **Field of Search** 445/412, 413, 445/414; 379/88, 89, 67, 88.12, 88.22, 88.23, 88.25

[56] **References Cited**

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5,384,832	1/1995	Zimmerman et al.	379/67
5,418,835	5/1995	Frohman et al.	445/113
5,434,907	7/1995	Hurst et al.	379/88
5,664,009	9/1997	Hurst et al.	379/88

FOREIGN PATENT DOCUMENTS

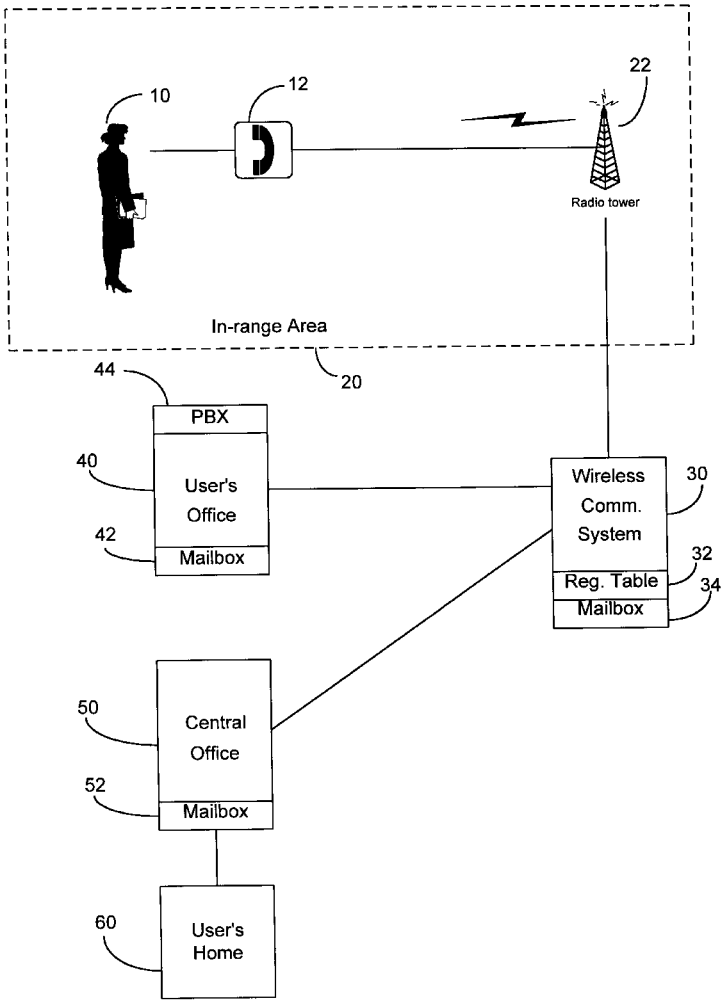
WO 95/04424 2/1996 WIPO .

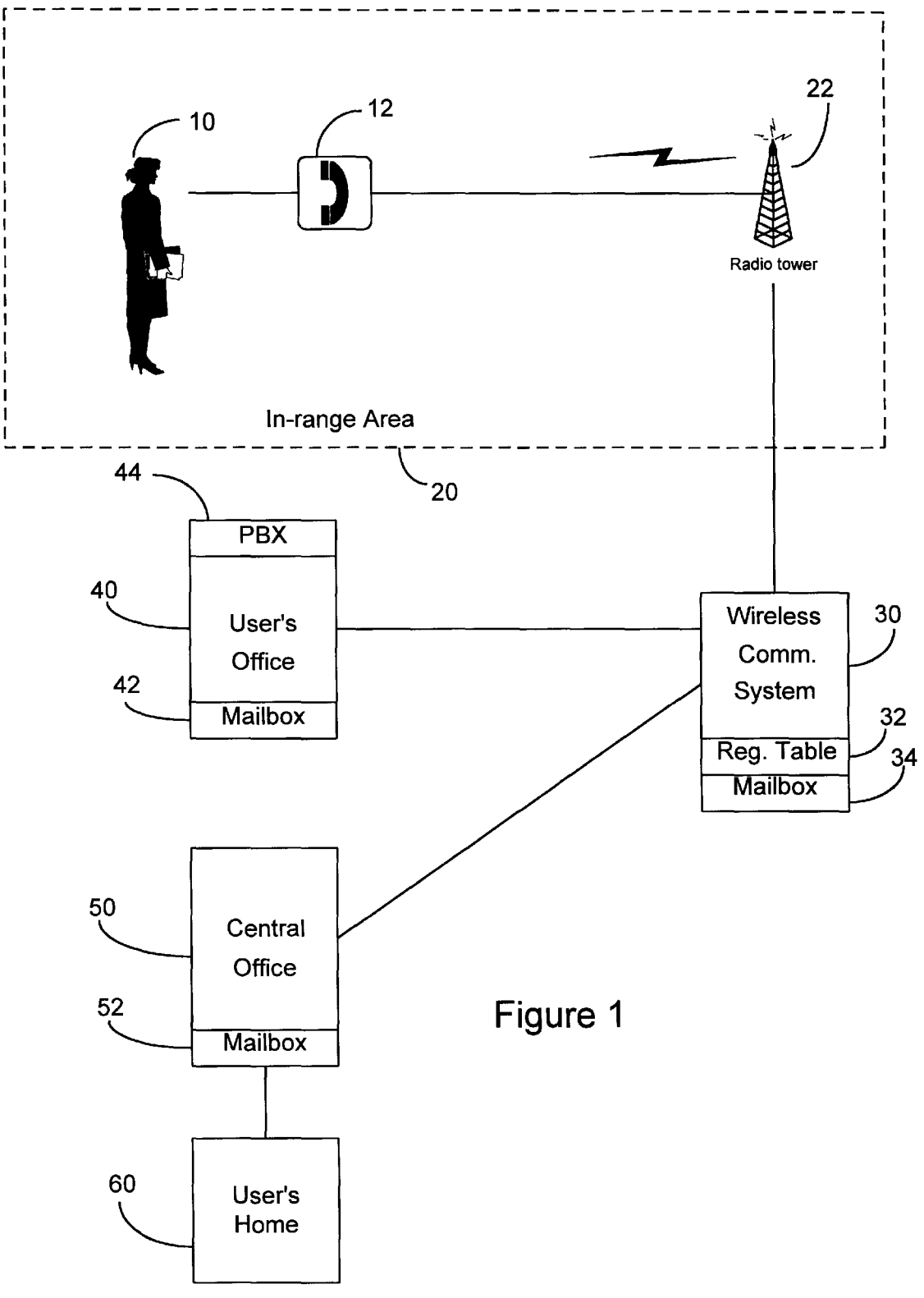
Primary Examiner—Willis R. Wolfe
Assistant Examiner—Hieu T. Vo
Attorney, Agent, or Firm—Heather S. Vance

[57] **ABSTRACT**

A system and method are provided for automatically notifying a user of an awaiting message. A wireless communication system including an identification system is utilized. The identification means identifies a registered user of the wireless communication system. A mail notification system is used for notifying the registered user of an awaiting message. A communication system checks for awaiting messages for the identified registered user. If an awaiting message is present, the communication system triggers the mail notification system.

17 Claims, 2 Drawing Sheets

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Mailbox
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System
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Mailbox
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Central
Office
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Mailbox
60
User's
Home

Figure 1

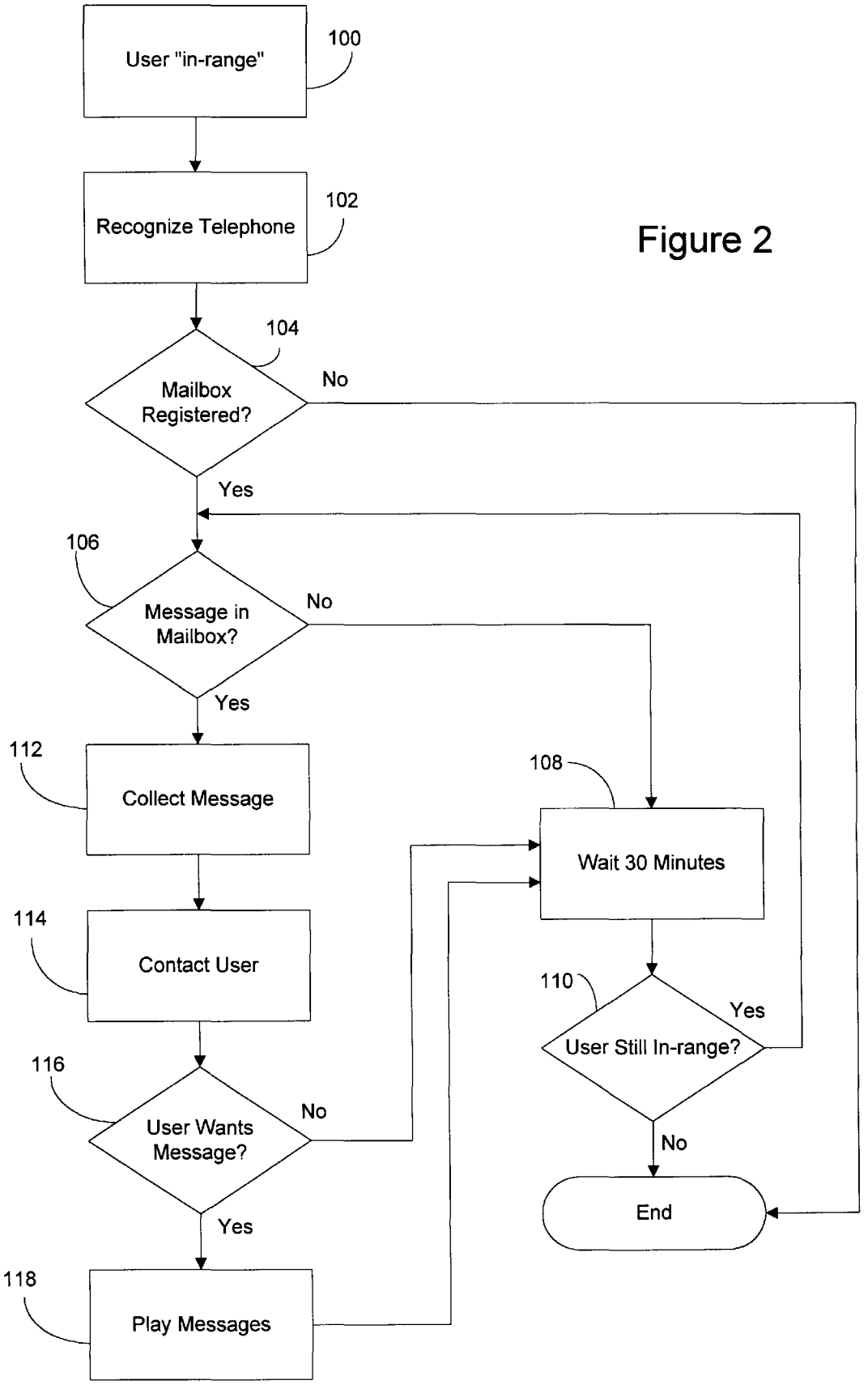
User "in-range"
100
Recognize Telephone
102
104
Mailbox Registered?
No
Yes
106
Message in Mailbox?
No
Yes
112
Collect Message
114
Contact User
116
User Wants Message?
No
Yes
118
Play Messages
108
Wait 30 Minutes
110
User Still In-range?
Yes
No
End

Figure 2

SYSTEM AND METHOD FOR PROVIDING AUTOMATED MESSAGE NOTIFICATION IN A WIRELESS COMMUNICATION SYSTEM

BACKGROUND OF THE INVENTION

1. Field of the Invention

The invention relates to connecting a messaging system with a wireless communication system, and more particularly to a system and a method for automatically notifying a user of an awaiting message in a wireless communication environment.

2. Description of the Related Art

Messaging systems are common in both public and private areas. For example, voice mail messaging systems are located in almost every office environment and in many private homes. Public and private wireless systems which include cellular telephones are also common. When a cellular telephone user subscribes to a messaging system, such as voice mail, from their cellular carrier, the user must periodically check for messages in that user's message mailbox. This checking is done manually by placing telephone calls. Similarly, a user who is away from the office and/or home and awaiting some message(s) must periodically check for messages in the office and/or home message mailbox(es). This is usually done by calling the office voice mail system or the home voice mail system. An office voice mail system may be connected to a PBX (private branch exchange), and a home voice mail system may be connected to a central office. Thus, both of these systems can be accessed with a telephone call from a user. In these situations, the messaging systems rely on users to remember to check their message mailbox(es).

Outcalling is available in some voice mail systems. Systems with outcalling can be programmed to call a given number when a message is received, but this is not helpful in a wireless communication environment because the cellular telephone can be out of range or turned off.

Enhanced one-number services are available to allow a single cellular telephone to operate with multiple systems. In this arrangement, all telephone calls are transferred to (or follow) a single cellular telephone. While enhanced one-number services transfer calls to a single cellular telephone, they do not transfer awaiting messages.

In public wireless systems, it is desirable to reduce air time usage, and therefore reduce air time charges, and in private wireless systems, it is desirable to reduce congestion on an internal network and to improve usability. Finally, a system which provides simplified mobile message notification and reception is desirable.

SUMMARY OF THE INVENTION

According to the invention, a system and method for automatically notifying a user of an awaiting message are provided. A wireless communication system including an identification means is utilized. The identification means identifies a registered user of the wireless communication system. A mail notification system is used for notifying the registered user of an awaiting message. A communication means checks for awaiting messages for the identified registered user. If an awaiting message is present, the communication means triggers the mail notification system.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** illustrates an example of a communication environment for one embodiment of the present invention; and

FIG. **2** is a process flow chart for an embodiment of the present invention.

DETAILED DESCRIPTION

The present invention provides for automatically notifying a user of an awaiting message and for playing that message for the user in a wireless communication environment. This invention applies to any type of multimedia message (e.g., voice message, e-mail message, video message, facsimile message, etc.). In the detailed description below, the present invention is applied to voice messages (or voice mail).

FIG. **1** illustrates an example of a communication environment for one embodiment of the present invention. In the preferred embodiment, the present invention checks for an awaiting message(s) whenever a user **10** with activated cellular telephone **12** moves into an "in-range" area **20** of a remote wireless base station **22**. Wireless provider/carrier base station **22** includes a transmitter and a receiver for wireless communication. Wireless communication provider/carrier system **30** is then contacted by wireless base station **22**. Wireless base station **22** provides wireless communication system **30** with the registration identification number assigned to cellular telephone **12**. Either wireless base station **22** or wireless communication system **30** performs a check on the cellular telephone's registration identification number. These checks are normally done to confirm that cellular telephone **12** has a valid account (e.g., owned by a legitimate, registered user).

Wireless communication system **30** then uses the registration identification number to check its message mail registration table **32** and to determine if user **10** has an associated mailbox(es) **34**. Hence, wireless communication system **30** uses the cellular telephone identification number to associate cellular telephone **12** with a particular message mailbox **34**, or with multiple message mailboxes **34**, **42**, **52**. In one embodiment of the present invention, multiple message mailboxes **34**, **42**, **52** are checked for awaiting messages. When an awaiting message is present in any of multiple message mailboxes **34**, **42**, **52**, the user is automatically contacted. The messages from all of these multiple messaging systems can then be transferred to the user. For example, message mailbox **34** is attached to the cellular network and provided by wireless communication system **30**. Additionally, user **10** may have land-based message mailbox **42** through a PBX message system **44** located at the user's office **40** and another land-based message mailbox **52** through a central office **50** which provides messaging services to user's home system **60**.

After associated message mailboxes **34**, **42**, **52** are found, wireless communication system **30** sends a query to message mailboxes **34**, **42**, **52** to determine if any awaiting messages are present. If there are messages present, wireless communication system **30** notifies the user of the awaiting messages. This notification can be done, for example, by sending a message for display on cellular telephone **12** or by placing a telephone call to cellular telephone **12**. If a telephone call is placed to cellular telephone **12**, user **10** can be offered the option of connecting to the message mailbox(es) with awaiting messages immediately.

After a user is "in-range" of wireless base station **22**, wireless communication system **30** can continue to provide this service by either regularly polling the messaging system (s), or by having the messaging system(s) notify it if any new messages for user **10** arrive. If regular polling is used, wireless communication system **30** contacts messaging sys-

tems **34**, **42**, **52** after a predetermined waiting period. This contacting, waiting and then contacting again continues until user **10** leaves area **20** or cellular telephone **12** is turned off.

In another embodiment of the present invention, the messaging system is used to contact the user. Once the messaging system is notified by the wireless communication provider that a user is "in-range," the messaging system could place a telephone call to the user for notification purposes. The messaging system could then play the message for the user, if desired.

FIG. **2** is a process flow chart for an embodiment of the present invention. At step **100**, a user with an activated cellular telephone arrives in an area covered by a wireless base station. At step **102**, the system recognizes the user's cellular telephone. Standard registration techniques are used for recognizing the cellular telephone. At step **104**, the system checks for message mailbox registration. If no mailboxes are registered for that user, the process ends. If a mailbox (or mailboxes) is registered, the system moves on to step **106**. At step **106**, the system queries the registered message mailbox(es). If no messages are present, the system waits a predetermined amount of time (e.g., 30 minutes) at step **108**. At step **110**, the system checks if the user is still "in-range." If the user is out-of-range, the process ends. Also, If the cellular telephone is turned off, the process ends. If the user is in-range, the system returns to step **106**. The system checks again for messages at step **106**. If messages are waiting for the user, the system collects the message(s) at step **112**. Step **112** is optional. For example, if the user's messaging system(s) is used to contact the user about awaiting messages, the system does not need to collect the message(s).

At step **114**, the user is contacted regarding the awaiting message(s). This contacting can be done by either the wireless communication provider or each of the user's messaging systems. As stated above, this contacting can be done by providing information on the display of the user's cellular telephone or by calling the user's cellular telephone. If information is provided on the display of the cellular telephone, this information can include which of the user's messaging systems contains the awaiting message. Thus, the user could then directly call the appropriate messaging system. At step **116**, the system determines if the user wants to play the awaiting message(s). This can be done by the user, for example, by entering a code into the user's cellular telephone or by answering prompts provided by the telephone call which notifies the user of the awaiting messages. If the user wants to play the awaiting message(s), the system plays the messages at step **118**. This is done by either playing the collected messages or by connecting the user to the messaging system which contains the awaiting message. The system waits a predetermined amount of time at step **108**. The system then checks if the user is still in-range at step **110**. If the user is still in range, the system returns to step **106** and checks for messages. If the user does not want to play the awaiting message(s) the system moves directly to step **108** and waits.

The user can interact with the present system. For example, by calling a special telephone number or by entering a code into the cellular telephone, the user can disable the present system or change the parameters of the present system. To change the parameters, the user could, for example, change the predetermined amount of time the system waits before rechecking for messages. In the preferred embodiment, the process shown in FIG. **2** continues until the user is out-of-range or the cellular telephone is turned off. Also, the process shown in FIG. **2** repeats itself whenever a user comes in range of a wireless base station. Therefore, the system follows the user from station to station.

The present invention can be applied in an in-building wireless system. For example, some offices have wireless systems which allow their employees to move inside buildings or around campases (i.e., clusters of buildings in close proximity) while remaining connected to their PBX or central office with a wireless connector. With the present invention, users within a building or campus area would be treated as thought they were in-range of a wireless base station. Furthermore, these in-building wireless systems are often limited in channel capacity such that application of the present invention would dramatically reduce congestion.

The present invention provides numerous advantages. For example, by providing for automatic contact when an awaiting message is present, the user makes fewer telephone calls. This occurs because the user does not need to periodically check for awaiting messages. The periodic polling of multiple messaging systems can result in many unnecessary telephone calls. In public wireless systems, air time usage is reduced. Thus, air time charges are reduced. Similarly, in private wireless systems, congestion on the internal network is reduced and usability is improved. Additionally, enhanced security is provided by the present invention. This occurs because the cellular telephone's hardware registration identification number can be used as an added requirement for accessing a user's message(s). The user's password could be eliminated, but in the preferred embodiment, both the registration identification number and the user's password are required for access to awaiting message(s).

We claim:

1. A system for automatically notifying a user of an awaiting message, comprising:

identification means for identifying a registered user of a wireless communication system, the identification means being located in the wireless communication system;

mail notification means for notifying the registered user of an awaiting message; and

communication means for checking for awaiting messages in multiple mailboxes associated with the registered user, and for triggering the mail notification means if an awaiting message is present, wherein the multiple mailboxes being located in multiple messaging systems.

2. The system for automatically notifying a user of an awaiting message of claim **1**, wherein the communication means checks each of the multiple mailboxes on a periodic basis.

3. The system for automatically notifying a user of an awaiting message of claim **1**, wherein the mail notification means is a voice mail notification system.

4. The system for automatically notifying a user of an awaiting message of claim **1**, wherein the mail notification means connects the registered user with a mailbox in a messaging system containing the awaiting message.

5. The system for automatically notifying a user of an awaiting message of claim **1**, wherein the mail notification means collects the awaiting message and gives the registered user the option of listening to the awaiting message.

6. The system for automatically notifying a user of an awaiting message of claim **5**, wherein the identification means identifies a registration number, and wherein both the registration number and a password are needed for listening to the awaiting message.

7. The system for automatically notifying a user of an awaiting message of claim **1**, wherein the registered user can interact with the system and disable the system.

8. The system for automatically notifying a user of an awaiting message of claim **1**, wherein a telephone call is placed to the registered user, the telephone call notifying the registered user of the awaiting message.

9. A method for automatically notifying a user of an awaiting message, comprising the steps of:

a) recognizing a cellular telephone, the recognizing using a registration number of the cellular telephone, the registration number identifying a user;

b) checking for mailboxes associated with the user;

c) checking for awaiting messages in the mailboxes if the mailboxes exist, wherein the mailboxes are located in multiple messaging systems; and

d) contacting the user with information related to the awaiting message if the awaiting message is present.

10. The method for automatically notifying a user of an awaiting message of claim **9**, further comprising the step of collecting the awaiting message if the awaiting message is present.

11. The method for automatically notifying a user of an awaiting message of claim **10**, further comprising the step of playing the collected messages for the user.

12. The method for automatically notifying a user of an awaiting message of claim **9**, further comprising the step of repeating steps c) and d) periodically until the user is out-of-range.

13. The method for automatically notifying a user of an awaiting message of claim **9**, wherein a mailbox registration table is used when checking for the mailboxes.

14. The method for automatically notifying a user of an awaiting message of claim **9**, further comprising the step of connecting the user to the mailbox with the awaiting message.

15. The method for automatically notifying a user of an awaiting message of claim **9**, wherein the user is contacted by placing a telephone call to the cellular telephone.

16. The method for automatically notifying a user of an awaiting message of claim **9**, wherein the messages are voice mail messages.

17. The system for automatically notifying a user of an awaiting message of claim **1**, wherein the multiple messaging systems include at least one of a PBX, a central office and the wireless communication system.

* * * * *

Request for Ex Parte Reexamination of U.S. Patent No. 5,889,839

Exhibit PAT-B

U.S. Patent No. 5,889,839 File History

[redacted]

5889839

Class	Subclass	ISSUE CLASSIFICATION

UTILITY SERIAL NUMBER	PATENT DATE	PATENT NUMBER
08/		

SERIAL NUMBER	FILING DATE	CLASS	SUBCLASS	GROUP ART UNIT	EXAMINER
				3747	

APPLICANTS

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NONE VC

NONE VC

Foreign priority claimed / 35 USC 119 conditions met / Verified and Acknowledged	AS FILED	STATE OR COUNTRY	SHEETS DRWGS.	TOTAL CLAIMS	INDEP. CLAIMS	FILING FEE RECEIVED	ATTORNEY'S DOCKET NO.
☐ yes ☒ no / ☐ yes ☒ no / Examiner's initials							

ADDRESS

TITLE

U.S. DEPT. OF COMM./ PAT. & TM—PTO-436L (Rev 12

PARTS OF APPLICATION FILED SEPARATELY

Applications Examiner

NOTICE OF ALLOWANCE MAILED		CLAIMS ALLOWED	
	Assistant Examiner	Total Claims	Print Claim
		17	1

ISSUE FEE		DRAWING		
Amount Due	Date Paid	Sheets Drwg	Figs. Drwg.	Print Fig.
		12	21	1

Willis R. Wolfe
Primary Examiner
Art Unit 3747

Label Area

PREPARED FOR ISSUE

ISSUE BATCH NUMBER

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Form PTO-436A
(Rev 8/92)

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08/724295

PATENT APPLICATION

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CONTENTS

Date Entered or Counted			Date Received or Mailed
	1.	Application ✓ papers.	
	2.	Information Disclosure Statement 7246 98	
4/27	3.	Rejection (3)	9-29-98 OA
	4.	Status Letter	May 4, 1998 am
4-1-98	5.	Amdt A	July 31, 1998
	6.	Interview Summary	11-5-98
11/9	7.	Exr's Amdt. 1B	11-10-98
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Class	Sub.	Date	Exmr.
445	412	4/24/98	VO
445	413	↓	↓
445	414		
379	88		
379	89		
379	91		
updated		11/3/98	VO
379	88,12	↓	↓
379	88,22		
379	88,23		
379	88,25		

INTERFERENCE SEARCHED

Class	Sub.	Date	Exmr.
ALL	of above	11/3/98	VO

SEARCH NOTES

	Date	Exmr.
APS (text, prior art)	4/24/98	VO

(RIGHT OUTSIDE)

☆ U S GOVERNMENT PRINTING OFFICE: 1997—424-353

PATENT NUMBER

APPLICATION SERIAL NUMBER
08/724,295

APPLICANT'S NAME (PLEASE PRINT)
BEYDA ET AL.

IF REISSUE, ORIGINAL PATENT NUMBER

ORIGINAL CLASSIFICATION

CLASS	SUBCLASS
379	88.12

CROSS REFERENCE(S)

CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)			
455	412	413		
379	88.22	88.25		

INTERNATIONAL CLASSIFICATION

H	0	4	M		3/42
H	1	4	M		1/64
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GROUP ART UNIT: 3747

ASSISTANT EXAMINER (PLEASE STAMP OR PRINT FULL NAME): HIEU T. VO

PRIMARY EXAMINER (PLEASE STAMP OR PRINT FULL NAME): WILLIS R. WOLFE, JR.

PTO 270 (REV 5-91)

ISSUE CLASSIFICATION SLIP

U S DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

Claim Final	Claim Original	Date							
		4/22/98	11/5/98						
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SYMBOLS

✓	Rejected
=	Allowed
- (Through numberal)	Canceled
+	Restricted
N	Non-elected
I	Interference
A	Appeal
O	Objected

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US005889839A

United States Patent [19]

Beyda et al.

[11] **Patent Number: 5,889,839**

[45] **Date of Patent: Mar. 30, 1999**

[54] **SYSTEM AND METHOD FOR PROVIDING AUTOMATED MESSAGE NOTIFICATION IN A WIRELESS COMMUNICATION SYSTEM**

[75] Inventors: **William J. Beyda**, Cupertino; **Shmuel Shaffer**, Palo Alto, both of Calif.

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Primary Examiner—Willis R. Wolfe
Assistant Examiner—Hieu T. Vo
Attorney, Agent, or Firm—Heather S. Vance

[57] **ABSTRACT**

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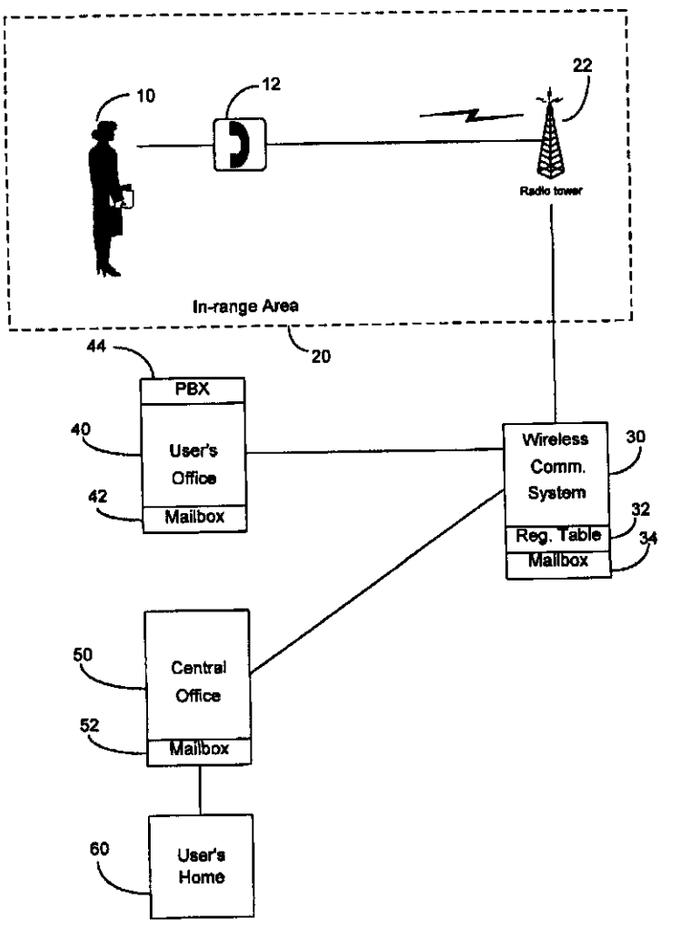
17 Claims, 2 Drawing Sheets



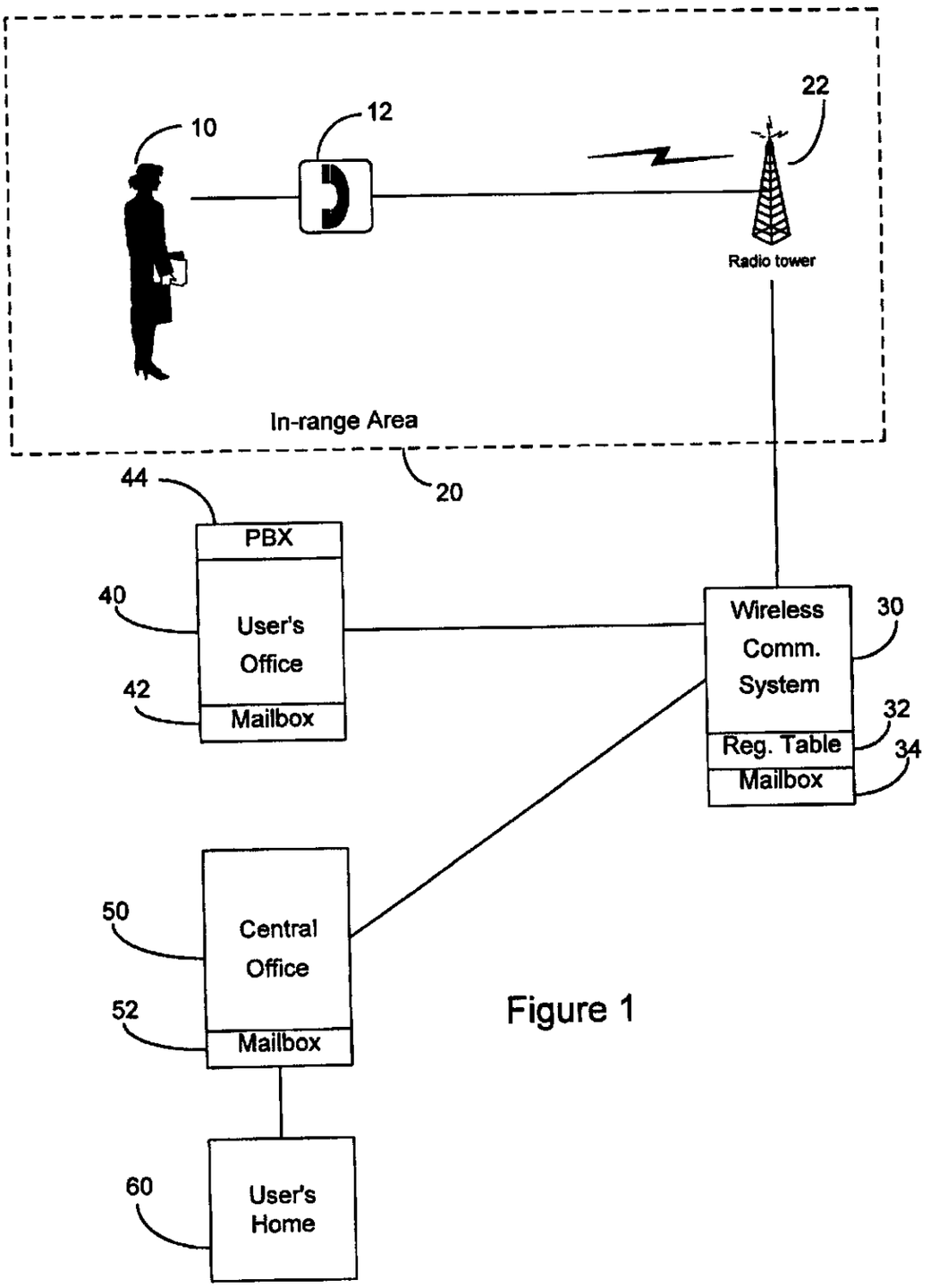

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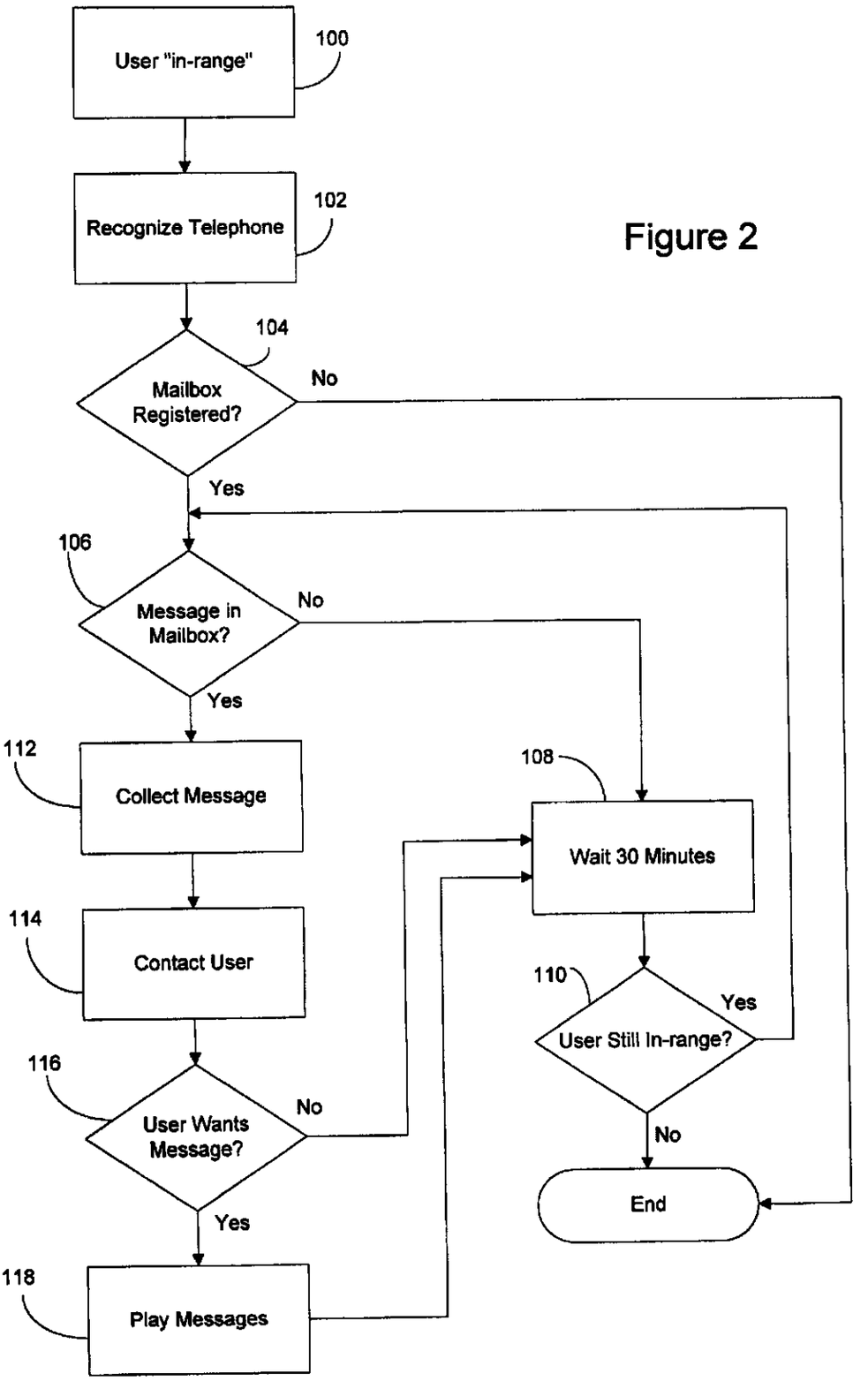
Figure 1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Message in Mailbox?
No
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112
Collect Message
114
Contact User
116
User Wants Message?
No
Yes
118
Play Messages
108
Wait 30 Minutes
110
User Still In-range?
Yes
No
End

Figure 2

SYSTEM AND METHOD FOR PROVIDING AUTOMATED MESSAGE NOTIFICATION IN A WIRELESS COMMUNICATION SYSTEM

BACKGROUND OF THE INVENTION

1. Field of the Invention

The invention relates to connecting a messaging system with a wireless communication system, and more particularly to a system and a method for automatically notifying a user of an awaiting message in a wireless communication environment.

2. Description of the Related Art

Messaging systems are common in both public and private areas. For example, voice mail messaging systems are located in almost every office environment and in many private homes. Public and private wireless systems which include cellular telephones are also common. When a cellular telephone user subscribes to a messaging system, such as voice mail, from their cellular carrier, the user must periodically check for messages in that user's message mailbox. This checking is done manually by placing telephone calls. Similarly, a user who is away from the office and/or home and awaiting some message(s) must periodically check for messages in the office and/or home message mailbox(es). This is usually done by calling the office voice mail system or the home voice mail system. An office voice mail system may be connected to a PBX (private branch exchange), and a home voice mail system may be connected to a central office. Thus, both of these systems can be accessed with a telephone call from a user. In these situations, the messaging systems rely on users to remember to check their message mailbox(es).

Outcalling is available in some voice mail systems. Systems with outcalling can be programmed to call a given number when a message is received, but this is not helpful in a wireless communication environment because the cellular telephone can be out of range or turned off.

Enhanced one-number services are available to allow a single cellular telephone to operate with multiple systems. In this arrangement, all telephone calls are transferred to (or follow) a single cellular telephone. While enhanced one-number services transfer calls to a single cellular telephone, they do not transfer awaiting messages.

In public wireless systems, it is desirable to reduce air time usage, and therefore reduce air time charges, and in private wireless systems, it is desirable to reduce congestion on an internal network and to improve usability. Finally, a system which provides simplified mobile message notification and reception is desirable.

SUMMARY OF THE INVENTION

According to the invention, a system and method for automatically notifying a user of an awaiting message are provided. A wireless communication system including an identification means is utilized. The identification means identifies a registered user of the wireless communication system. A mail notification system is used for notifying the registered user of an awaiting message. A communication means checks for awaiting messages for the identified registered user. If an awaiting message is present, the communication means triggers the mail notification system.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** illustrates an example of a communication environment for one embodiment of the present invention; and

FIG. **2** is a process flow chart for an embodiment of the present invention.

DETAILED DESCRIPTION

The present invention provides for automatically notifying a user of an awaiting message and for playing that message for the user in a wireless communication environment. This invention applies to any type of multimedia message (e.g., voice message, e-mail message, video message, facsimile message, etc.). In the detailed description below, the present invention is applied to voice messages (or voice mail).

FIG. **1** illustrates an example of a communication environment for one embodiment of the present invention. In the preferred embodiment, the present invention checks for an awaiting message(s) whenever a user **10** with activated cellular telephone **12** moves into an "in-range" area **20** of a remote wireless base station **22**. Wireless provider/carrier base station **22** includes a transmitter and a receiver for wireless communication. Wireless communication provider/carrier system **30** is then contacted by wireless base station **22**. Wireless base station **22** provides wireless communication system **30** with the registration identification number assigned to cellular telephone **12**. Either wireless base station **22** or wireless communication system **30** performs a check on the cellular telephone's registration identification number. These checks are normally done to confirm that cellular telephone **12** has a valid account (e.g., owned by a legitimate, registered user).

Wireless communication system **30** then uses the registration identification number to check its message mail registration table **32** and to determine if user **10** has an associated mailbox(es) **34**. Hence, wireless communication system **30** uses the cellular telephone identification number to associate cellular telephone **12** with a particular message mailbox **34**, or with multiple message mailboxes **34, 42, 52**. In one embodiment of the present invention, multiple message mailboxes **34, 42, 52** are checked for awaiting messages. When an awaiting message is present in any of multiple message mailboxes **34, 42, 52**, the user is automatically contacted. The messages from all of these multiple messaging systems can then be transferred to the user. For example, message mailbox **34** is attached to the cellular network and provided by wireless communication system **30**. Additionally, user **10** may have land-based message mailbox **42** through a PBX message system **44** located at the user's office **40** and another land-based message mailbox **52** through a central office **50** which provides messaging services to user's home system **60**.

After associated message mailboxes **34, 42, 52** are found, wireless communication system **30** sends a query to message mailboxes **34, 42, 52** to determine if any awaiting messages are present. If there are messages present, wireless communication system **30** notifies the user of the awaiting messages. This notification can be done, for example, by sending a message for display on cellular telephone **12** or by placing a telephone call to cellular telephone **12**. If a telephone call is placed to cellular telephone **12**, user **10** can be offered the option of connecting to the message mailbox(es) with awaiting messages immediately.

After a user is "in-range" of wireless base station **22**, wireless communication system **30** can continue to provide this service by either regularly polling the messaging system (s), or by having the messaging system(s) notify it if any new messages for user **10** arrive. If regular polling is used, wireless communication system **30** contacts messaging sys-

tems **34**, **42**, **52** after a predetermined waiting period. This contacting, waiting and then contacting again continues until user **10** leaves area **20** or cellular telephone **12** is turned off.

In another embodiment of the present invention, the messaging system is used to contact the user. Once the messaging system is notified by the wireless communication provider that a user is "in-range," the messaging system could place a telephone call to the user for notification purposes. The messaging system could then play the message for the user, if desired.

FIG. **2** is a process flow chart for an embodiment of the present invention. At step **100**, a user with an activated cellular telephone arrives in an area covered by a wireless base station. At step **102**, the system recognizes the user's cellular telephone. Standard registration techniques are used for recognizing the cellular telephone. At step **104**, the system checks for message mailbox registration. If no mailboxes are registered for that user, the process ends. If a mailbox (or mailboxes) is registered, the system moves on to step **106**. At step **106**, the system queries the registered message mailbox(es). If no messages are present, the system waits a predetermined amount of time (e.g., 30 minutes) at step **108**. At step **110**, the system checks if the user is still "in-range." If the user is out-of-range, the process ends. Also, If the cellular telephone is turned off, the process ends. If the user is in-range, the system returns to step **106**. The system checks again for messages at step **106**. If messages are waiting for the user, the system collects the message(s) at step **112**. Step **112** is optional. For example, if the user's messaging system(s) is used to contact the user about awaiting messages, the system does not need to collect the message(s).

At step **114**, the user is contacted regarding the awaiting message(s). This contacting can be done by either the wireless communication provider or each of the user's messaging systems. As stated above, this contacting can be done by providing information on the display of the user's cellular telephone or by calling the user's cellular telephone. If information is provided on the display of the cellular telephone, this information can include which of the user's messaging systems contains the awaiting message. Thus, the user could then directly call the appropriate messaging system. At step **116**, the system determines if the user wants to play the awaiting message(s). This can be done by the user, for example, by entering a code into the user's cellular telephone or by answering prompts provided by the telephone call which notifies the user of the awaiting messages. If the user wants to play the awaiting message(s), the system plays the messages at step **118**. This is done by either playing the collected messages or by connecting the user to the messaging system which contains the awaiting message. The system waits a predetermined amount of time at step **108**. The system then checks if the user is still in-range at step **110**. If the user is still in range, the system returns to step **106** and checks for messages. If the user does not want to play the awaiting message(s) the system moves directly to step **108** and waits.

The user can interact with the present system. For example, by calling a special telephone number or by entering a code into the cellular telephone, the user can disable the present system or change the parameters of the present system. To change the parameters, the user could, for example, change the predetermined amount of time the system waits before rechecking for messages. In the preferred embodiment, the process shown in FIG. **2** continues until the user is out-of-range or the cellular telephone is turned off. Also, the process shown in FIG. **2** repeats itself whenever a user comes in range of a wireless base station. Therefore, the system follows the user from station to station.

The present invention can be applied in an in-building wireless system. For example, some offices have wireless systems which allow their employees to move inside buildings or around campases (i.e., clusters of buildings in close proximity) while remaining connected to their PBX or central office with a wireless connector. With the present invention, users within a building or campus area would be treated as thought they were in-range of a wireless base station. Furthermore, these in-building wireless systems are often limited in channel capacity such that application of the present invention would dramatically reduce congestion.

The present invention provides numerous advantages. For example, by providing for automatic contact when an awaiting message is present, the user makes fewer telephone calls. This occurs because the user does not need to periodically check for awaiting messages. The periodic polling of multiple messaging systems can result in many unnecessary telephone calls. In public wireless systems, air time usage is reduced. Thus, air time charges are reduced. Similarly, in private wireless systems, congestion on the internal network is reduced and usability is improved. Additionally, enhanced security is provided by the present invention. This occurs because the cellular telephone's hardware registration identification number can be used as an added requirement for accessing a user's message(s). The user's password could be eliminated, but in the preferred embodiment, both the registration identification number and the user's password are required for access to awaiting message(s).

We claim:

1. A system for automatically notifying a user of an awaiting message, comprising:

identification means for identifying a registered user of a wireless communication system, the identification means being located in the wireless communication system;

mail notification means for notifying the registered user of an awaiting message; and

communication means for checking for awaiting messages in multiple mailboxes associated with the registered user, and for triggering the mail notification means if an awaiting message is present, wherein the multiple mailboxes being located in multiple messaging systems.

2. The system for automatically notifying a user of an awaiting message of claim **1**, wherein the communication means checks each of the multiple mailboxes on a periodic basis.

3. The system for automatically notifying a user of an awaiting message of claim **1**, wherein the mail notification means is a voice mail notification system.

4. The system for automatically notifying a user of an awaiting message of claim **1**, wherein the mail notification means connects the registered user with a mailbox in a messaging system containing the awaiting message.

5. The system for automatically notifying a user of an awaiting message of claim **1**, wherein the mail notification means collects the awaiting message and gives the registered user the option of listening to the awaiting message.

6. The system for automatically notifying a user of an awaiting message of claim **5**, wherein the identification means identifies a registration number, and wherein both the registration number and a password are needed for listening to the awaiting message.

7. The system for automatically notifying a user of an awaiting message of claim 1, wherein the registered user can interact with the system and disable the system.

8. The system for automatically notifying a user of an awaiting message of claim 1, wherein a telephone call is placed to the registered user, the telephone call notifying the registered user of the awaiting message.

9. A method for automatically notifying a user of an awaiting message, comprising the steps of:

a) recognizing a cellular telephone, the recognizing using a registration number of the cellular telephone, the registration number identifying a user;

b) checking for mailboxes associated with the user;

c) checking for awaiting messages in the mailboxes if the mailboxes exist, wherein the mailboxes are located in multiple messaging systems; and

d) contacting the user with information related to the awaiting message if the awaiting message is present.

10. The method for automatically notifying a user of an awaiting message of claim 9, further comprising the step of collecting the awaiting message if the awaiting message is present.

11. The method for automatically notifying a user of an awaiting message of claim 10, further comprising the step of playing the collected messages for the user.

12. The method for automatically notifying a user of an awaiting message of claim 9, further comprising the step of repeating steps c) and d) periodically until the user is out-of-range.

13. The method for automatically notifying a user of an awaiting message of claim 9, wherein a mailbox registration table is used when checking for the mailboxes.

14. The method for automatically notifying a user of an awaiting message of claim 9, further comprising the step of connecting the user to the mailbox with the awaiting message.

15. The method for automatically notifying a user of an awaiting message of claim 9, wherein the user is contacted by placing a telephone call to the cellular telephone.

16. The method for automatically notifying a user of an awaiting message of claim 9, wherein the messages are voice mail messages.

17. The system for automatically notifying a user of an awaiting message of claim 1, wherein the multiple messaging systems include at least one of a PBX, a central office and the wireless communication system.

* * * * *

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TITLE

SYSTEM AND METHOD FOR PROVIDING AUTOMATED MESSAGE NOTIFICATION IN A WIRELESS COMMUNICATION SYSTEM

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Date Certifying Officer

Abstract of the Disclosure

A system and method are provided for automatically notifying a user of an awaiting message. A wireless communication system including an identification means is utilized. The identification means identifies a registered user of the wireless communication system. A mail notification system is used for notifying the registered user of an awaiting message. A communication means checks for awaiting messages for the identified registered user. If an awaiting message is present, the communication means triggers the mail notification system.

SYSTEM AND METHOD FOR PROVIDING AUTOMATED MESSAGE NOTIFICATION IN A WIRELESS COMMUNICATION SYSTEM

BACKGROUND OF THE INVENTION

Field of the Invention

The invention relates to connecting a messaging system with a wireless communication system, and more particularly to a system and a method for automatically notifying a user of an awaiting message in a wireless communication environment.

Description of the Related Art

Messaging systems are common in both public and private areas. For example, voice mail messaging systems are located in almost every office environment and in many private homes. Public and private wireless systems which include cellular telephones are also common. When a cellular telephone user subscribes to a messaging system, such as voice mail, from their cellular carrier, the user must periodically check for messages in that user's message mailbox. This checking is done manually by placing telephone calls. Similarly, a user who is away from the office and/or home and awaiting some message(s) must periodically check for messages in the office and/or home message mailbox(es). This is usually done by calling the office voice mail system or the home voice mail system. An office voice mail system may be connected to a PBX (private branch exchange), and a home voice mail system may be connected to a central office. Thus, both of these systems can be accessed with a telephone call from a user. In these situations, the messaging systems rely on users to remember to check their message mailbox(es).

Outcalling is available in some voice mail systems. Systems with outcalling can be programmed to call a given number when a message is received, but this is not helpful in a wireless communication environment because the cellular telephone can be out of range or turned off.

Enhanced one-number services are available to allow a single cellular telephone to operate with multiple systems. In this arrangement, all telephone calls are transferred to (or follow) a single cellular telephone. While enhanced one-number services transfer calls to a single cellular telephone, they do not transfer awaiting messages.

In public wireless systems, it is desirable to reduce air time usage, and therefore reduce air time charges, and in private wireless systems, it is desirable to reduce congestion on an internal network and to improve usability. Finally, a system which provides simplified mobile message notification and reception is desirable.

Summary of the Invention

According to the invention, a system and method for automatically notifying a user of an awaiting message are provided. A wireless communication system including an identification means is utilized. The identification means identifies a registered user of the wireless communication system. A mail notification system is used for notifying the registered user of an awaiting message. A communication means checks for awaiting messages for the identified registered user. If an awaiting message is present, the communication means triggers the mail notification system.

Brief Description of the Drawings

Figure 1 illustrates an example of a communication environment for one embodiment of the present invention; and

Figure 2 is a process flow chart for an embodiment of the present invention.

Detailed Description

The present invention provides for automatically notifying a user of an awaiting message and for playing that message for the user in a wireless communication environment. This invention applies to any type of multimedia

message (e.g., voice message, e-mail message, video message, facsimile message, etc.). In the detailed description below, the present invention is applied to voice messages (or voice mail).

Figure 1 illustrates an example of a communication environment for one embodiment of the present invention. In the preferred embodiment, the present invention checks for an awaiting message(s) whenever a user 10 with activated cellular telephone 12 moves into an "in-range" area 20 of a remote wireless base station 22. Wireless provider/carrier base station 22 includes a transmitter and a receiver for wireless communication. Wireless communication provider/carrier system 30 is then contacted by wireless base station 22. Wireless base station 22 provides wireless communication system 30 with the registration identification number assigned to cellular telephone 12. Either wireless base station 22 or wireless communication system 30 performs a check on the cellular telephone's registration identification number. These checks are normally done to confirm that cellular telephone 12 has a valid account (e.g., owned by a legitimate, registered user).

Wireless communication system 30 then uses the registration identification number to check its message mail registration table 32 and to determine if user 10 has an associated mailbox(es) 34. Hence, wireless communication system 30 uses the cellular telephone identification number to associate cellular telephone 12 with a particular message mailbox 34, or with multiple message mailboxes 34, 42, 52. In one embodiment of the present invention, multiple message mailboxes 34, 42, 52 are checked for awaiting messages. When an awaiting message is present in any of multiple message mailboxes 34, 42, 52, the user is automatically contacted. The messages from all of these multiple messaging systems can then be transferred to the user. For example, message mailbox 34 is attached to the cellular network and provided by wireless communication system 30. Additionally, user 10 may have land-based message mailbox 42 through a PBX message system 44 located at the user's office 40 and another land-based message mailbox 52 through a central office 50 which provides messaging services to user's

home system 60.

After associated message mailboxes 34, 42, 52 are found, wireless communication system 30 sends a query to message mailboxes 34, 42, 52 to determine if any awaiting messages are present. If there are messages present, wireless communication system 30 notifies the user of the awaiting messages. This notification can be done, for example, by sending a message for display on cellular telephone 12 or by placing a telephone call to cellular telephone 12. If a telephone call is placed to cellular telephone 12, user 10 can be offered the option of connecting to the message mailbox(es) with awaiting messages immediately.

After a user is "in-range" of wireless base station 22, wireless communication system 30 can continue to provide this service by either regularly polling the messaging system(s), or by having the messaging system(s) notify it if any new messages for user 10 arrive. If regular polling is used, wireless communication system 30 contacts messaging systems 34, 42, 52 after a predetermined waiting period. This contacting, waiting and then contacting again continues until user 10 leaves area 20 or cellular telephone 12 is turned off.

In another embodiment of the present invention, the messaging system is used to contact the user. Once the messaging system is notified by the wireless communication provider that a user is "in-range," the messaging system could place a telephone call to the user for notification purposes. The messaging system could then play the message for the user, if desired.

Figure 2 is a process flow chart for an embodiment of the present invention. At step 100, a user with an activated cellular telephone arrives in an area covered by a wireless base station. At step 102, the system recognizes the user's cellular telephone. Standard registration techniques are used for recognizing the cellular telephone. At step 104, the system checks for message mailbox registration. If no mailboxes are registered for that user, the process ends. If a mailbox (or mailboxes) is registered, the system moves on to step 106. At step 106, the system queries the registered

message mailbox(es). If no messages are present, the system waits a predetermined amount of time (e.g., 30 minutes) at step 108. At step 110, the system checks if the user is still "in-range." If the user is out-of-range, the process ends. Also, If the cellular telephone is turned off, the process ends. If the user is in-range, the system returns to step 106. The system checks again for messages at step 106. If messages are waiting for the user, the system collects the message(s) at step 112. Step 112 is optional. For example, if the user's messaging system(s) is used to contact the user about awaiting messages, the system does not need to collect the message(s).

At step 114, the user is contacted regarding the awaiting message(s). This contacting can be done by either the wireless communication provider or each of the user's messaging systems. As stated above, this contacting can be done by providing information on the display of the user's cellular telephone or by calling the user's cellular telephone. If information is provided on the display of the cellular telephone, this information can include which of the user's messaging systems contains the awaiting message. Thus, the user could then directly call the appropriate messaging system. At step 116, the system determines if the user wants to play the awaiting message(s). This can be done by the user, for example, by entering a code into the user's cellular telephone or by answering prompts provided by the telephone call which notifies the user of the awaiting messages. If the user wants to play the awaiting message(s), the system plays the messages at step 118. This is done by either playing the collected messages or by connecting the user to the messaging system which contains the awaiting message. The system waits a predetermined amount of time at step 108. The system then checks if the user is still in-range at step 110. If the user is still in range, the system returns to step 106 and checks for messages. If the user does not want to play the awaiting message(s) the system moves directly to step 108 and waits.

The user can interact with the present system. For example, by calling a special telephone number or by entering a code into the cellular telephone,

the user can disable the present system or change the parameters of the present system. To change the parameters, the user could, for example, change the predetermined amount of time the system waits before rechecking for messages. In the preferred embodiment, the process shown in Figure 2 continues until the user is out-of-range or the cellular telephone is turned off. Also, the process shown in Figure 2 repeats itself whenever a user comes in-range of a wireless base station. Therefore, the system follows the user from station to station.

The present invention can be applied in an in-building wireless system. For example, some offices have wireless systems which allow their employees to move inside buildings or around campases (i.e., clusters of buildings in close proximity) while remaining connected to their PBX or central office with a wireless connector. With the present invention, users within a building or campus area would be treated as thought they were in-range of a wireless base station. Furthermore, these in-building wireless systems are often limited in channel capacity such that application of the present invention would dramatically reduce congestion.

The present invention provides numerous advantages. For example, by providing for automatic contact when an awaiting message is present, the user makes fewer telephone calls. This occurs because the user does not need to periodically check for awaiting messages. The periodic polling of multiple messaging systems can result in many unnecessary telephone calls. In public wireless systems, air time usage is reduced. Thus, air time charges are reduced. Similarly, in private wireless systems, congestion on the internal network is reduced and usability is improved. Additionally, enhanced security is provided by the present invention. This occurs because the cellular telephone's hardware registration identification number can be used as an added requirement for accessing a user's message(s). The user's password could be eliminated, but in the preferred embodiment, both the registration identification number and the user's password are required for access to awaiting message(s).

CLAIMS

1. A system for automatically notifying a user of an awaiting message, comprising:

a wireless communication system with identification means, the identification means identifying a registered user of the wireless communication system;

a mail notification system for notifying the registered user of an awaiting message; and

communication means for checking for awaiting messages for the identified registered user, and for triggering the mail notification system if an awaiting message is present.

2. The system for automatically notifying a user of an awaiting message of claim 1, wherein the communication means checks for awaiting messages from multiple mailboxes.

3. The system for automatically notifying a user of an awaiting message of claim 2, wherein the communication means checks each of the multiple mailboxes on a periodic basis.

4. The system for automatically notifying a user of an awaiting message of claim 1, wherein the mail notification system is a voice mail notification system.

5. The system for automatically notifying a user of an awaiting message of claim 1, wherein the mail notification system connects the registered user with a mail box containing the awaiting message.

6. The system for automatically notifying a user of an awaiting message of claim 1, wherein the mail notification system collects the awaiting

message and gives the registered user the option of listening to the awaiting message.

7. The system for automatically notifying a user of an awaiting message of claim 6, wherein the identification means identifies a registration number, and wherein both the registration number and a password are needed for listening to the awaiting message.

8. The system for automatically notifying a user of an awaiting message of claim 1, wherein the registered user can interact with the system and disable the system.

9. The system for automatically notifying a user of an awaiting message of claim 1, wherein a telephone call is placed to the registered user, the telephone call notifying the registered user of the awaiting message.

10. A method for automatically notifying a user of an awaiting message, comprising the steps of:

a) recognizing a cellular telephone, the recognizing using a registration number of the cellular telephone, the registration number identifying a user;

b) checking for a mailbox associated with the user;

c) checking for awaiting messages in the mailbox if the mailbox exists; and

d) contacting the user with information related to the awaiting message if the awaiting message is present.

11. The method for automatically notifying a user of an awaiting message of claim 10, further comprising the step of collecting the awaiting message if the awaiting message is present.

12. The method for automatically notifying a user of an awaiting

message of claim 11, further comprising the step of playing the collected messages for the user.

13. The method for automatically notifying a user of an awaiting message of claim 10, further comprising the step of repeating steps c) and d) periodically until the user is out-of-range.

14. The method for automatically notifying a user of an awaiting message of claim 10, wherein a mailbox registration table is used when checking for the mailbox.

15. The method for automatically notifying a user of an awaiting message of claim 10, further comprising the step of connecting the user to the mailbox with the awaiting message.

16. The method for automatically notifying a user of an awaiting message of claim 10, wherein the user is contacted by placing a telephone call to the cellular telephone.

17. The method for automatically notifying a user of an awaiting message of claim 10, wherein the messages are voice mail messages.

DECLARATION FOR PATENT APPLICATION & POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

SYSTEM AND METHOD FOR PROVIDING AUTOMATED MESSAGE NOTIFICATION IN A WIRELESS COMMUNICATION SYSTEM

the specification of which (check one)
X is attached hereto.
__ was filed on __/__/____ as Application Serial No. __/_____
and was amended on __/__/____ (if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations § 1.56.

I hereby claim foreign priority benefits under Title 35, United States Codes, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

PRIOR FOREIGN APPLICATION(S)			Priority claimed	
(Number)	(Country)	(Day/month/year filed)	Yes	No
(Number)	(Country)	(Day/month/year filed)	Yes	No
(Number)	(Country)	(Day/month/year filed)	Yes	No

I hereby claim the benefits under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

(Application Serial No.)	(Filing date)	(Status) (patented,pending,abandoned)
(Application Serial No.)	(Filing date)	(Status) (patented,pending,abandoned)

Power of Attorney: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith

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I hereby declare that all statements made herein on my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are

punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

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AS ORIGINALLY FILED

08/724295

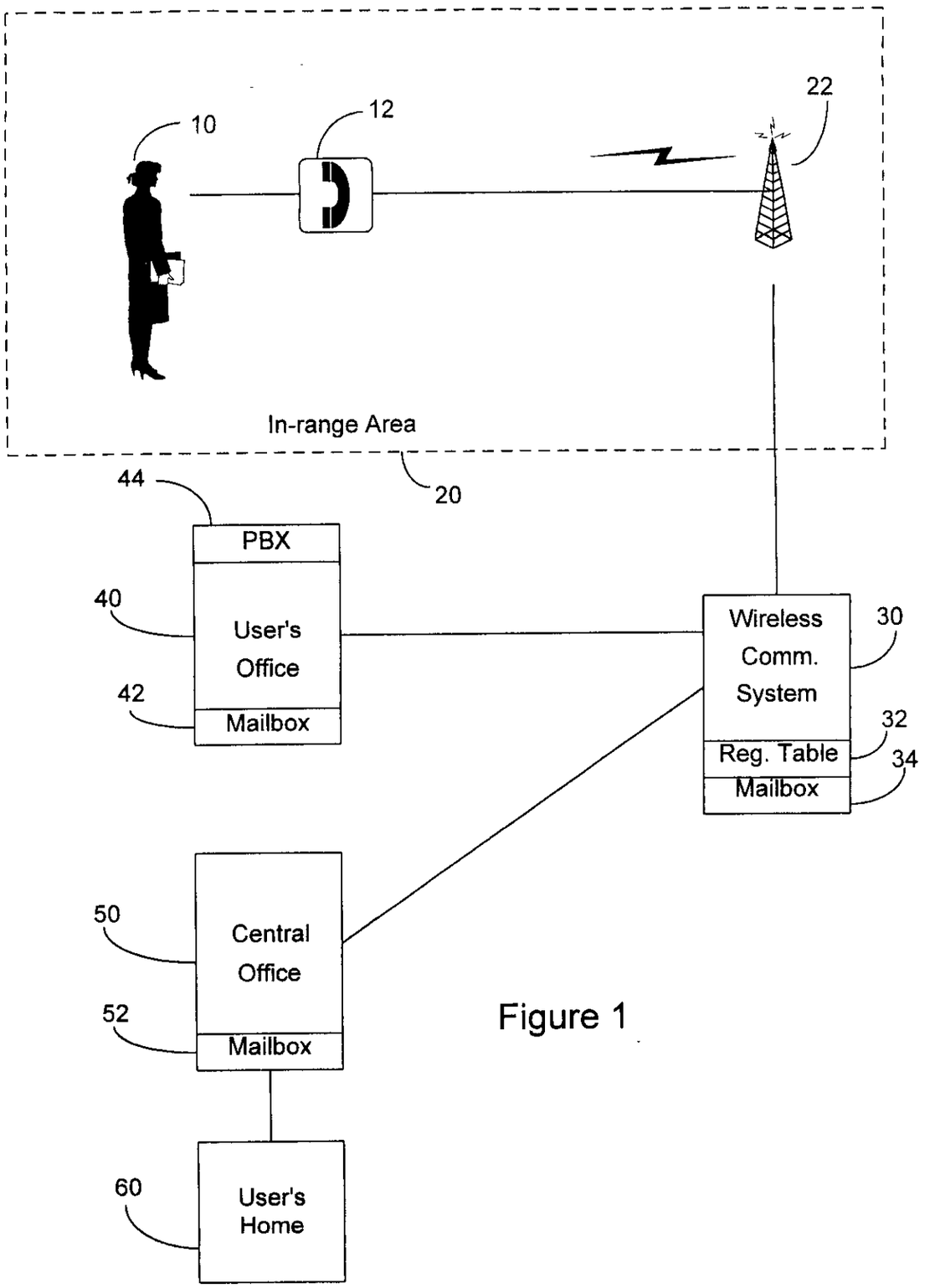


Figure 1

PRINT OF DRAWINGS
AS ORIGINALLY FILED

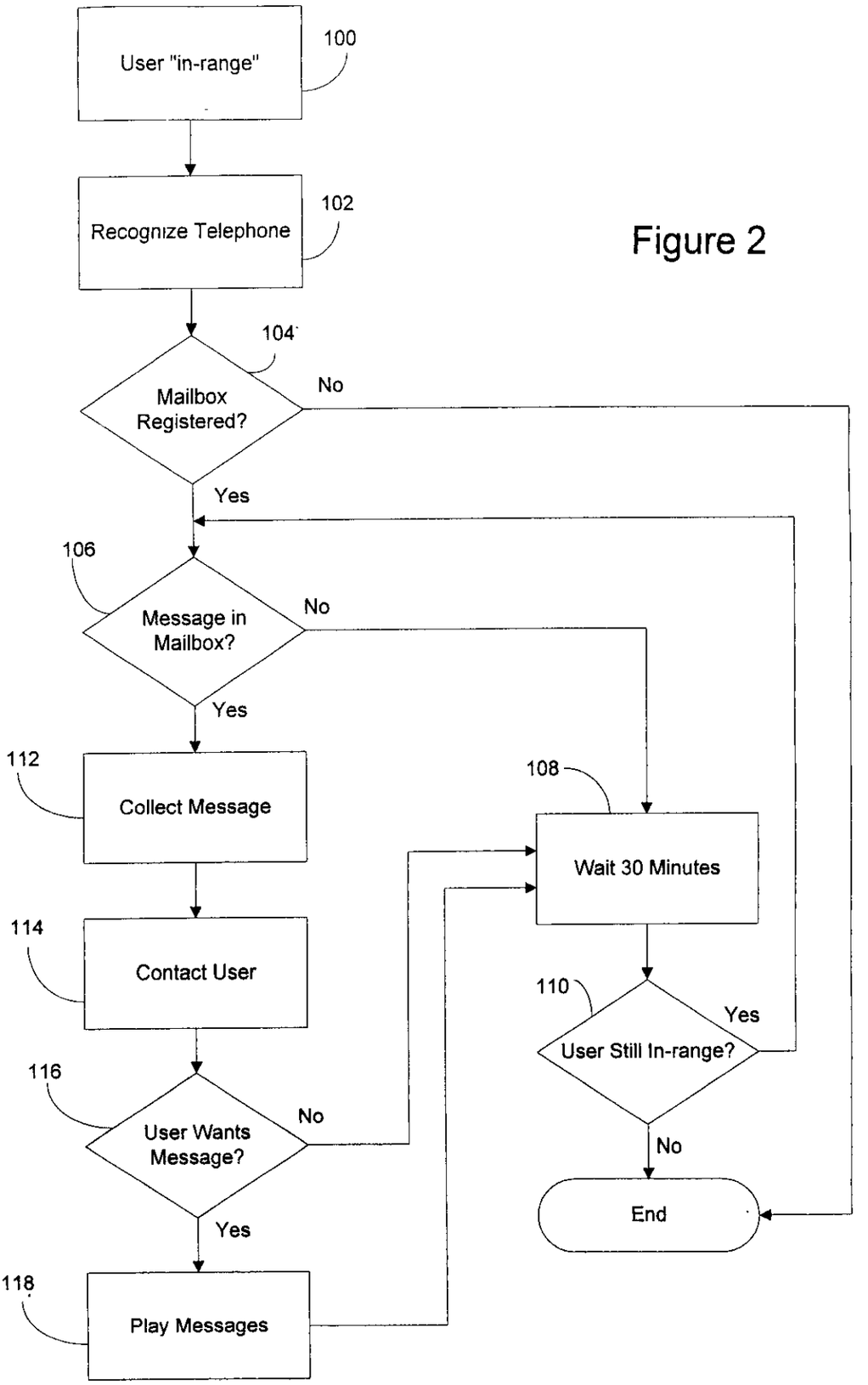


Figure 2

08/724295

ney Docket No. 96P7539 US
Page No. 1

SIEMENS Corporation
D-West Coast
4900 Old Ironsides Drive, M/S 210
Box 58075
Santa Clara, CA 95052-8075

PATENT APPLICATION

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

THE ASSISTANT COMMISSIONER FOR PATENTS
Washington, D.C. 20231

TRANSMITTAL LETTER FOR NEW APPLICATION

Sir:

Transmitted herewith for filing is a(n) [X]Original patent application. [X] Utility [ ] Design
[ ]Continuation-in-part application

INVENTOR(S): William J. Beyda and Shmuel Shaffer

TITLE: SYSTEM AND METHOD FOR PROVIDING AUTOMATED MESSAGE NOTIFICATION IN A WIRELESS COMMUNICATION SYSTEM

Enclosed are:

[X] The Declaration and Power of Attorney [X] signed [ ] unsigned
[X] 2 sheets of drawings [X] formal drawings [ ] informal drawings (one set)
[ ] Associate Power of Attorney
[ ] Priority Document(s) [ ] _____ (fee $_____)
[X] An Assignment of the invention to: SIEMENS ROLM COMMUNICATIONS INC.

[X] Filing fee has been calculated as shown below (other than small entity):

For	Number Filed	Number Extra	Rate	Additional Fees
Total Claims	17 - 20	= 0	x $ 22	$0
Indep. Claims	2 - 3	= 0	x $ 78	$0
[ ] First Presentation of a Multiple Dependent Claim			x $250	$0
Extension Fee!!	1st Month $110.00	2nd Month $380.00	3rd Month $900.00	4th Month $1400.00	$0
		Basic filing Fee		$750.00
			Total	$750.00

Please charge my Deposit Account No. 19-2179 in the amount of $ 750.00 . The Commissioner is hereby authorized to charge any fees that may be required, or credit any overpayment to Deposit Account No. 19-2179 pursuant to 37 CFR 1.25. A duplicate copy of this sheet is enclosed.

PLEASE MAIL CORRESPONDENCE TO:

Siemens Corporation
Attn: Elsa Keller, Legal Administrator
Intellectual Property Department
186 Wood Avenue South
Iselin, NJ 08830

Respectfully submitted,

Heather S. Vance

Heather S. Vance
Attorney for Applicant(s)
Reg. No.: 39,033

Date: September 19, 1996
Telephone: 408/492-5085

"Express Mail " Label No. EM 483 535 090 US

Date of Deposit : September 19, 1996

I hereby certify that this is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231

By _____

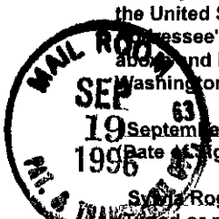
Typed Name: Sylvia Rogers

"Express Mail" mailing label number EM 483 535 090 US

08/724295

Date of Deposit September 19, 1996

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, DC 20231.



September 19, 1996
(Date of Signature)

Sylvia Rogers
(Typed or printed name of person mailing paper or fee)

(Signature of person mailing paper or fee)

Atty Docket No. 96 P7539 US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

This is a U.S. Patent Application for:

Title: SYSTEM AND METHOD FOR PROVIDING AUTOMATED MESSAGE NOTIFICATION IN A WIRELESS COMMUNICATION SYSTEM

Inventor: William J. Beyda
Address: 21580 Edward Way, Cupertino, CA 95014
Citizenship: U.S.A.

Inventor: Shmuel Shaffer
Address: 1211 Cowper Street, Palo Alto, CA 94301
Citizenship: U.S.A.

SIEMENS Corporation
ISD-West Coast
4900 Old Ironsides Drive, M/S 210
P.O. Box 58075
Santa Clara, CA 95052-8075

PATENT APPLICATION

ATTORNEY DOCKET NO.: 96[illegible] US

Gp2603

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Beyda et al.

Serial No.: 08/724,295

Filing Date: September 19, 1996

Title: System and Method for Providing Automated Message Notification in a Wireless Communication System

THE ASSISTANT COMMISSIONER FOR PATENTS
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

This Information Disclosure Statement is submitted:

[X] under 37 CFR 1.97 (b), or
(Within three months of filing national application; or date of entry of international application; or before mailing date of first office action on the merits; whichever occurs last)

[ ] under 37 CFR 1.97 (c) together with either a:
[ ] Certification under 37 CFR 1.97 (e), or
[ ] A $230.00 fee under 37 CFR 1.17 (p), or
(After the CFR 1.97 (b) time period, but before final action or notice of allowance, whichever occurs first)

[ ] under 37 CFR 1.97 (d) together with a:
[ ] Certification under 37 CFR 1.97 (e), and
[ ] a petition under 37 CFR 1.97 (d) (2) (ii), and
[ ] a $130.00 petition fee set forth in 37 CFR 1.17 (i)(1).
(Filed after final action or notice of allowance, whichever occurs first, but before payment of the issue fee)

[ ] under 37 CFR 1.97 (i)
[ ] Filed after payment of issue fee, but before grant of patent - No fee or certification required

Please charge to Deposit Account 19-2179 the sum of 0 . At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 19-2179 pursuant to 37 CFR 1.25.

[X] Applicant(s) submit herewith Form PTO 1449 - Information Disclosure Citation together with copies of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR 1.56.

[ ] A concise explanation of the relevance of foreign language patents, foreign language publications and other foreign language information listed on PTO Form 1449, as presently understood by the individual(s) designated in 37 CFR 1.56 (c) most knowledgeable about the content that is given on the attached sheet or by the enclosed English-language search report.

The filing of this information disclosure statement shall not be construed as a representation that a search has been made or that no other material information exists. Further, the filing of this information disclosure statement shall not be construed as an admission against interest in any manner or as an admission that the information cited is, or is considered to be material to patentability.

It is requested that the information disclosed herein be made of record in this application.

I hereby certify that this correspondence is being deposited with the United States Postal Service as

[X] First Class Mail (with sufficient postage)

[ ] "Express Mail Post Office to Addressee" service under 37 CFR 1.10.
"Express Mail" Label no. _____

in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

Date of Deposit: December 13, 1996
Typed Name: Sylvia Rogers
Signature: [signature]

Respectfully Submitted,

[signature]
Heather S. Vance
Attorney for Applicant(s)
Reg. No.: 39,033

Date: December 13, 1996
Telephone No.: (408) 492-5085

PTO/SB/08 (2-92)
Sheet 1 of 1

FORM PTO-1449 (Modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary) (37 CFR 1.98(b))	ATTY. DOCKET NO.: 96P7539 US	SERIAL NO.: 08/724,295
	APPLICANT(S): Beyda et al.	
	FILING DATE: September 19, 1996	GROUP ART UNIT: 3747

DEC 16 1996 TRADEMARK OFF

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUB-CLASS	FILING DATE if appropriate
VO	AA	5,384,832	01/24/95	Zimmerman et al.	379	67	
VO	AB	5,418,835	05/23/95	Frohman et al.	445	113	
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						

FOREIGN PATENTS OR PUBLISHED FOREIGN PATENT APPLICATIONS

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUB-CLASS	TRANSLATION YES	TRANSLATION NO
VO	AI	WO 95/04424	02/09/96	PCT			X	
	AJ							
	AK							
	AL							

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AM	
	AN	
	AO	
	AP	

EXAMINER	HIEU T. VO	DATE CONSIDERED	4/20/98

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/724,295	09/19/96	BEYDA W	96P7539-US

QM61/0429

SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPT
186 WOOD AVENUE SOUTH
ISELIN NJ 08830

EXAMINER	
VO,T	
ART UNIT	**PAPER NUMBER**
3747	3

DATE MAILED: 04/29/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

PTO-90C (Rev 2/95)
*U S GPO: 1997-422-198/60031

1- File Copy

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address. COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D C 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.

EXAMINER	
ART UNIT	PAPER NUMBER
	3

DATE MAILED:

Please find below a communication from the EXAMINER in charge of this application.

Commissioner of Patents

Office Action Summary	Application No. 08/724,295	Applicant(s) BEYDA et al.
	Examiner HIEU T. VO	Group Art Unit 3747

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-17 is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-17 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 11 9(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____.

Attachment(s)

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☒ Notice of References Cited, PTO-892

☐ Notice of Informal Patent Application, PTO-152

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Other _____

Office Action Summary

DETAILED ACTION

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Specification

2. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Extensive mechanical and design details of apparatus should not be given.

A substitute abstract on a separate sheet is respectfully required on applicant's response to this Office Action.

Claim Rejections - 35 U.S.C. § 112

3 Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 1-9, they are vague and indefinite since the claimed limitations contain only functional language without any defined structure.

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-6, 9, and 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasper et al. (5,177,780)

As to claims 1-6, and 9, Kasper et al. disclose a message processing system as shown in Figure 1 including a plurality of cell site nodes (CSN) 106, 107; a plurality of call processing/database nodes (CDN) 108, 109; a plurality of cell sites 131, 132 for communicating with mobile units within a cell, each cell site including the equipment necessary to set up and complete calls between the cell site and mobile units; voice mail systems (VMS)121, 122 are computer systems attached to the switching system 120 and function as a central answering machine for telephone subscribers. Each subscriber is assigned a "mailbox" on the disk of the VMS into which messages are entered by the callers when the subscriber does not answer (see column 2 line 5 to column 3 line 6).

As to claims 10-17, Kasper et al. disclose in Figure 2 a flow chart of the system operations in implement the voice mail notification system.

With regard to the claimed limitation of the wireless communication system with identification means for identifying a registered user in claim 1, and the step of recognizing a cellular phone using a registration number in claim 10, they are well-known to one of the ordinary skill in the art for communication between the cellular phone and the cell site.

5. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasper et al. (5,177,780) in view of Blair (4,964,156).

As to claims 7 and 8, Kasper et al. do not teach the claimed limitations of both a registration number and a password are needed for listening to the awaiting message as in claim 7, and the registered user can interact with the system and disable the system in claim 8.

Blair discloses a flow chart as in Figure 3A the step of checking password for activating the voice mailbox system (VMS), and further in Figures 6 and 7 the steps of enabling and disabling the processing by the user.

Therefore, it has been obvious to one of ordinary skill in the art at the time the invention was made to combine the steps of checking password, and enabling/disabling the processing by the user as taught by Blair with the message processing system of Kasper et al. in order to have more security for preventing anybody accesses to the user's mailbox.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hurst et al. (5,434,907 and 5,664,009) disclose a voice mail notification system.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Hieu T. Vo whose telephone number is (703) 305-6800. The examiner can normally be reached on Monday through Friday from 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry C. Yuen, can be reached on (703) 308-1946. The fax phone number for this group is (703) 308-7764.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

HIEU T. VO
Patent Examiner
Art Unit 3747

HTV
April 22, 1998

ANDREW M. DOLINAR
PRIMARY EXAMINER
ART UNIT 3747

Notice of References Cited

Application No.	Applicant(s)
08/724,295	BEYDA et al.
Examiner	**Group Art Unit**
HIEU T. VO	3747

Page 1 of 1

U.S. PATENT DOCUMENTS

*		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS
	A	4,964,156	10/1990	BLAIR	379	40
	B	5,177,780	01/1993	KASPER et al.	455	413
	C	5,434,907	07/1995	HURST et al.	379	88
	D	5,664,009	09/1997	HURST et al	379	88
	E					
	F					
	G					
	H					
	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUBCLASS
	N						
	O						
	P						
	Q						
	R						
	S						
	T						

NON-PATENT DOCUMENTS

*		DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
	U		
	V		
	W		
	X		

*A copy of this reference is not being furnished with this Office action (See Manual of Patent Examining Procedure, Section 707.05(a).)

Form PTO 948 (Rev 10/94) U.S. DEPARTMENT OF COMMERCE - Patent and Trademark Office Application No. 10/724,247

NOTICE OF DRAFTSPERSON'S PATENT DRAWING REVIEW

PTO Draftpersons review all originally filed drawings regardless of whether they are designated as formal or informal. Additionally, patent Examiners will review the drawings for compliance with the regulations. Direct telephone inquiries concerning this review to the Drawing Review Branch, 703-305-8404.

The drawings filed (insert date)_____, are
A._____ not objected to by the Draftsperson under 37 CFR 1.84 or 1.152.
B.__X__ objected to by the Draftsperson under 37 CFR 1.84 or 1.152 as indicated below. The Examiner will require submission of new, corrected drawings when necessary. Corrected drawings must be submitted according to the instructions on the back of this Notice.

1. DRAWINGS. 37 CFR 1.84(a): Acceptable categories of drawings: Black ink. Color.
   ___ Not black solid lines. Fig(s)_____
   ___ Color drawings are not acceptable until petition is granted. Fig(s) _____
2. PHOTOGRAPHS. 37 CFR 1.84(b)
   ___ Photographs are not acceptable until petition is granted. Fig(s) _____
   ___ Photographs not properly mounted (must use brystol board or photographic double-weight paper). Fig(s)_____
   ___ Poor quality (half-tone). Fig(s)_____
3. GRAPHIC FORMS. 37 CFR 1.84 (d)
   ___ Chemical or mathematical formula not labeled as separate figure. Fig(s)_____
   ___ Group of waveforms not presented as a single figure, using common vertical axis with time extending along horizontal axis. Fig(s) _____
   ___ Individuals waveform not identified with a separate letter designation adjacent to the vertical axis. Fig(s)_____
4. TYPE OF PAPER. 37 CFR 1.84(c)
   ___ Paper not flexible, strong, white, smooth, nonshiny, and durable. Sheet(s)_____
   ___ Erasures, alterations, overwritings, interlineations, cracks, creases, and folds copy machine marks not accepted Fig(s) _____
   ___ Mylar, velum paper is not acceptable (too thin). Fig(s) _____
5. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes:
   21.6 cm. by 35.6 cm. (8 1/2 by 14 inches)
   21.6 cm. by 33.1 cm. (8 1/2 by 13 inches)
   21.6 cm. by 27.9 cm. (8 1/2 by 11 inches)
   21.0 cm. by 29.7 cm. (DIN size A4)
   ___ All drawing sheets not the same size. Sheet(s)_____
   ___ Drawing sheet not an acceptable size. Sheet(s) _____
6. MARGINS. 37 CFR 1.84(g): Acceptable margins:

Paper size	21.6 cm. X 35.6 cm (8 1/2 X 14 inches)	21.6 cm. X 33.1 cm. (8 1/2 X 13 inches)	21.6 cm. X 27.9 cm. (8 1/2 X 11 inches)	21.0 cm. X 29.7 cm. (DIN Size A4)
T	5.1 cm. (2")	2.5 cm. (1")	2.5 cm. (1")	2.5cm.
L	.64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	2.5 cm.
R	.64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	1.5 cm.
B	.64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	1.0 cm.

   Margins do not conform to chart above.
   Sheet(s)_____
   ___Top (T) ___ Left (L) ___Right (R) ___Bottom (B)
7. VIEWS 37 CFR 1.84(h)
   REMINDER: Specification may require revision to correspond to drawing changes.
   ___ All views not grouped together. Fig(s)_____
   ___ Views connected by projection lines or lead lines. Fig(s)_____
   Partial views. 37 CFR 1.84(h) 2
   ___ View and enlarged view not labled separately or properly. Fig(s)_____
   Sectional views. 37 CFR 1.84 (h) 3
   ___ Hatching not indicated for sectional portions of an object. Fig(s)_____
   ___ Cross section not drawn same as view with parts in cross section with regularly spaced parallel oblique strokes. Fig(s) _____
8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(i)
   ___ Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned so that the top becomes the right side, except for graphs. Fig(s)_____
9. SCALE. 37 CFR 1.84(k)
   ___ Scale not large enough to show mechanism with crowding when drawing is reduced in size to two-thirds in reproduction. Fig(s)_____
   ___ Indication such as "actual size" or scale 1/2" not permitted. Fig(s)_____
10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(l)
   ___ Lines, numbers & letters not uniformly thick and well defined, clean, durable, and black (except for color drawings). Fig(s)_____
11. SHADING. 37 CFR 1.84(m)
   __X__ Solid black shading areas not permitted. Fig(s)_____
   ___ Shade lines, pale, rough and blurred. Fig(s)_____
12. NUMBERS, LETTERS, & REFERENCE CHARACTERS. 37 CFR 1.84(p)
   ___ Numbers and reference characters not plain and legible. 37 CFR 1.84(p)(l) Fig(s)_____
   ___ Numbers and reference characters not oriented in same direction as the view. 37 CFR 1.84(p)(l) Fig(s)_____
   ___ English alphabet not used. 37 CFR 1.84(p)(2) Fig(s)_____
   ___ Numbers, letters, and reference characters do not measure at least .32 cm. (1/8 inch) in height. 37 CFR(p)(3) Fig(s)_____
13. LEAD LINES 37 CFR 1.84(q)
   ___ Lead lines cross each other. Fig(s)_____
   ___ Lead lines missing Fig(s)_____
14. NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(t)
   ___ Sheets not numbered consecutively, and in Arabic numerals, beginning with number 1. Sheet(s)_____
15. NUMBER OF VIEWS. 37 CFR 1.84(u)
   ___ Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s)_____
   ___ View numbers not preceded by the abbreviation Fig. Fig(s)_____
16. CORRECTIONS. 37 CFR 1.84(w)
   ___ Corrections not made from prior PTO-948. Fig(s)_____
17. DESIGN DRAWING. 37 CFR 1.152
   ___ Surface shading shown not appropriate. Fig(s) _____
   ___ Solid black shading not used for color contrast. Fig(s)_____

COMMENTS.

ATTACHMENT TO PAPER NO. 3 REVIEWER _____ DATE 11/25/06

SIEMENS Corporation
IPD-West Coast
4900 Old Ironsides Drive, M/S 210
P.O. Box 58075
Santa Clara, CA 95052-8075

PATENT APPLICATION

ATTORNEY DOCKET NO.: 96P7639US

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: William J. Beyda and Shmuel Shaffer

Serial No.: 08/724,295 Group No.: Not assigned

Filed: September 19, 1996 Examiner: D. Russele

For: SYSTEM AND METHOD FOR PROVIDING AUTOMATED MESSAGE NOTIFICATION IN A WIRELESS COMMUNICATION SYSTEM

ASSISTANT COMMISSIONER FOR PATENTS
Washington, D.C. 20231

REQUEST FOR STATUS OF APPLICATION

Sir:

Applicant hereby requests status of the above-identified application.

On November 26, 1996, we received the filing receipt (copy attached). We have not received any further communication from the U.S. Patent and Trademark Office.

Please advise Applicant's attorney at (408) 492-5086 of the present status of the above application.

Respectfully Submitted,

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

Date of Deposit: April 30, 1998

Typed Name: Jeanette Taplin

Signature

Heather S. Vance
Attorney for Applicant(s)
Reg. No.: 39,033
Date: 4/30/98
Telephone No.: 408/492-5085

PTO-103X
(Rev. 8-95)

HSV

FILING RECEIPT

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTORNEY DOCKET NO.	DRWGS	TOT CL	IND CL
08/724,295	09/19/96	2603	$750.00	96P7530		17	2

SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPT
186 WOOD AVENUE SOUTH
ISELIN NJ 08830

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Application Processing Division's Customer Correction Branch within 10 days of receipt. Please provide a copy of the Filing Receipt with the changes noted thereon.

Applicant(s)

WILLIAM J. BEYDA, CUPERTINO, CA; SHMUEL SHAFFER, PALO ALTO, CA.

FOREIGN FILING LICENSE GRANTED 11/19/96
TITLE
SYSTEM AND METHOD FOR PROVIDING AUTOMATED MESSAGE NOTIFICATION IN A WIRELESS COMMUNICATION SYSTEM

PRELIMINARY CLASS: 370

(see reverse)

ATTY DOCKET NO. 96 P 7539 US

PATENT

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July 28, 1998

Jeanette L. Taplin

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s):	William J. Beyda et al.	Examiner:	T. Vo
Serial No.:	08/724,295	Group Art Unit:	2742
Filed:	September 19, 1996		
Title:	SYSTEM AND METHOD FOR PROVIDING AUTOMATED MESSAGE NOTIFICATION IN A WIRELESS COMMUNICATION SYSTEM		

Assistant Commissioner for Patents
Washington, DC 20231

AMENDMENT

Sir:

In response to the Office Action mailed April 29, 1998, the Applicants respectfully amend the above application as follows.

IN THE CLAIMS:

Please cancel claim 2.

Please amend claims 1, 3-6, 10 and 14 as follows:

1. (Amended) A system for automatically notifying a user of an awaiting message, comprising:

[a wireless communication system with identification means, the] identification means for identifying a registered user of [the] a wireless communication system, the identification means being located in the wireless communication system;

a mail notification [system] means for notifying the registered user of an awaiting message; and

communication means for checking for awaiting messages for the identified registered user, and for triggering the mail notification [system] means if an awaiting message is present, the multiple mailboxes being located in multiple messaging systems.

---

3. (Amended) The system for automatically notifying a user of an awaiting message of claim [2] 1, wherein the communication means checks each of the multiple mailboxes on a periodic basis.

4. (Amended) The system for automatically notifying a user of an awaiting message of claim 1, wherein the mail notification [system] means is a voice mail notification system.

5. (Amended) The system for automatically notifying a user of an awaiting message of claim 1, wherein the mail notification [system] means connects the registered user with a mailbox in a messaging system containing the awaiting message.

6. (Amended) The system for automatically notifying a user of an awaiting message of claim 1, wherein the mail notification [system] means collects the awaiting message and gives the registered user the option of listening to the awaiting message.

---

10. (Amended) A method for automatically notifying a user of an awaiting message, comprising the steps of:

a) recognizing a cellular telephone, the recognizing using a registration number of the cellular telephone, the registration number identifying a user;

b) checking for [a mailbox] mailboxes associated with the user;

a3 c) checking for awaiting messages in the [mailbox] mailboxes if the [mailbox exists] mailboxes exist, wherein the mailboxes are located in multiple messaging systems; and

d) contacting the user with information related to the awaiting message if the awaiting message is present.

14.13 (Amended) The method for automatically notifying a user of an awaiting

a4 message of claim 10,9 wherein a mailbox registration table is used when checking for the [mailbox] mailboxes.

Please add new claim 18 as follows:

-- 18.17 The system for automatically notifying a user of an awaiting message of

a5 claim 1, wherein the multiple messaging systems include at least one of a PBX, a central office and the wireless communication system.--

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IN THE ABSTRACT

As requested by the Examiner, a substitute abstract is attached at the end of this Amendment.

REMARKS

1. Patentability Under 35 U.S.C. §103(a)

The subject matter of the various claims in the present patent application was commonly owed at the time the inventions covered therein were made.

2. Substitute Abstract

The Examiner has requested a substitute abstract be submitted on a separate sheet of paper. The substitute abstract is attached for the Examiner's consideration.

3. Rejection Under 35 U.S.C. §112

The Examiner rejected claims 1-9 under 35 U.S.C. §112, second paragraph, as being indefinite. These claims have been amended in accordance with 35 U.S.C. §112, sixth paragraph, such that they are "expressed as a means or step for performing a specified function without the recital of structure...". Based on the amendments made to claims 1-9, applicants respectfully request the withdrawal of the rejection under 35 U.S.C. §112 as to claims 1-9.

4. Rejections Under 35 U.S.C. §103

Claims 1-6, 9 and 10-17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Kasper (U.S. Patent No. 5,177,780). The Kasper reference provides a method of voice mail notification for cellular telephone systems. In particular, notification to a mobile telephone subscriber is provided when one or more incoming calls have been redirected to the subscriber's mailbox. In the Kasper reference, the subscriber can only be connected to one messaging system.

In contrast, the present invention allows the wireless system to be the unifying systems among multiple messaging systems. The wireless carrier monitors a user's voice mailbox at work, a user's voice mailbox at home, and/or any other mailbox belonging to the user. Thus, the present invention connects the user to whichever system currently has a message for that user. The Kasper reference describes an invention which is useful if the wireless carrier is the only one providing messages. Presently, many users have multiple messaging systems in their home, work, or with their cellular telephone. The Kasper reference does not provide collecting messages from these multiple places and then connecting the user to the correct messaging

system. Independent claims 1 and 10 have been amended to more particularly point out this feature of the present invention. For example, claims 1 and 10 state that multiple mailboxes in multiple messaging systems are checked for awaiting messages. Again, this unique feature of the present invention is not disclosed or suggested in the Kasper reference.

Dependent claims 3-6, 9 and 11-17 are not obvious in view of the Kasper reference because they depend from independent claims 1 and 10 which are not obvious in view of the Kasper reference. Moreover, these dependent claims include limitations which further distinguish them from the Kasper reference. For example, claim 5 sets forth connecting the user with a mailbox in a messaging system containing the awaiting message. Thus, the system must identify which of the multiple messaging system includes the mailbox with the message and then connects the user to the correct messaging system.

Claims 7 and 8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Kasper in view of Blair (U.S. Patent No. 4,964,156). The Blair reference provides a cellular telephone unit capable of automatic interaction with audio services. The Blair reference discloses use of a password for entering a voice mailbox system. In contrast, the present invention utilizes both a registration number and a password as set forth in claims 7 and 8. In the present invention, multiple mailboxes in multiple messaging systems are polled for the user. The wireless carrier is no longer the sole messaging provider. Because of the special circumstances of the present invention, a dual security means (i.e., registration number and password) is necessary to enhance protection of the system, since anyone from an outside system could call in and try to collect the user's messages. Blair does not disclose or suggest using both a registration number and password as claimed in the present invention. Applicants are unaware of any such combination of password and registration number. This technique provides a solution for a long felt need in the industry. Additionally, claims 7 and 8 depend on independent claim 1 which is not obvious in view of Kasper and Blair. As

set forth above, Kasper and Blair do not provide for checking for awaiting messages in multiple mailboxes, which are located in multiple messaging systems. For the above reasons, applicants respectfully request the withdrawal of the rejection under 35 U.S.C. §103(a) as to claims 1, and 3-17. Claim 2 has been cancelled.

5. New Claim 18

New dependent claim 18 is provided for the Examiner's consideration.

6. Drawings

Corrected formal drawings are enclosed for the Examiner's consideration.

CONCLUSION

Applicants submit the application is in form for allowance, and action to that end is respectfully urged. If the Examiner believes a telephone conference would in any way expedite the prosecution of the subject application, he is invited to telephone the undersigned at 650-595-3416.

Respectfully submitted,

Heather S. Vance

Heather S. Vance
Registration No. 39,033
Attorneys for Applicant(s)

Siemens Corporation
IPD - West Coast
4900 Old Ironsides Drive, M/S 210
Santa Clara, CA 95052-8075

Tel: 650-595-3416
Fax: 650-595-3419

Abstract of the Disclosure

A system and method are provided for automatically notifying a user of an awaiting message. A wireless communication system including an identification system is utilized. The identification means identifies a registered user of the wireless communication system. A mail notification system is used for notifying the registered user of an awaiting message. A communication system checks for awaiting messages for the identified registered user. If an awaiting message is present, the communication system triggers the mail notification system.

UNITED S ES DEPARTMENT OF COMMERCE
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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/[illegible]	[illegible]/96	[illegible]	[illegible]

[illegible]

[illegible]
[illegible]
[illegible]
[illegible]

EXAMINER
VO, H

ART UNIT	PAPER NUMBER
2747	#6

DATE MAILED: 11/10/98

INTERVIEW SUMMARY

All participants (applicant, applicant's representative, PTO personnel):

(1) Ms. HEATHER S. VANCE, Applicant's Attorney (3) Mr. HIEU T. VO, Patent Examiner

(2) Mr. WILLIS R. WOLFE, Primary Examiner (4) _____

Date of Interview 11/5/98

Type: ☒ Telephonic ☐ Personal (copy is given to ☐ applicant ☐ applicant's representative).

Exhibit shown or demonstration conducted: ☐ Yes ☒ No If yes, brief description: _____

Agreement ☒ was reached. ☐ was not reached.

Claim(s) discussed: 1

Identification of prior art discussed: NONE

Description of the general nature of what was agreed to if an agreement was reached, or any other comments:
Applicant's Attorney agrees with Examiner to amend claim 1 in order to meet the requirement of 35 USC 112, 2nd paragraph by Examiner's Amendment.

(A fuller description, if necessary, and a copy of the amendments, if available, which the examiner agreed would render the claims allowable must be attached. Also, where no copy of the amendments which would render the claims allowable is available, a summary thereof must be attached.)

1. ☒ It is not necessary for applicant to provide a separate record of the substance of the interview.

Unless the paragraph above has been checked to indicate to the contrary. A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION IS NOT WAIVED AND MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a response to the last Office action has are ready been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW.

2. ☒ Since the Examiner's interview summary above (including any attachments) reflects a complete response to each of the objections, rejections and requirements that may be present in the last Office action, and since the claims are now allowable, this completed form is considered to fulfill the response requirements of the last Office action. Applicant is not relieved from providing a separate record of the interview unless box 1 above is also checked.

Examiner Note: You must sign this form unless it is an attachment to another form.

FORM PTOL-413 (REV.1-96)

UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO
[illegible]	[illegible]	[illegible]	[illegible]

EXAMINER	
VO, H	
ART UNIT	PAPER NUMBER
[illegible]	#718

DATE MAILED: 11/10/98

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

NOTICE OF ALLOWABILITY

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

☒ This communication is responsive to Amendment filed July 31, 98.

☒ The allowed claim(s) is/are 1, 3-18. Claim 2 is canceled.

☒ The drawings filed on July 31, 1998 are acceptable.

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE **THREE MONTHS** FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

☐ Applicant MUST submit NEW FORMAL DRAWINGS

☐ because the originally filed drawings were declared by applicant to be informal.

☐ including changes required by the Notice of Draftperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. _____.

☐ including changes required by the proposed drawing correction filed on _____, which has been approved by the examiner.

☐ including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftperson.

☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

☒ Interview Summary, PTO-413

☒ Examiner's Amendment/Comment

☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

☒ Examiner's Statement of Reasons for Allowance

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms. HEATHER S. VANCE, Applicant's Attorney, on November 05, 1998 .

2. The application has been amended as follows:

In the claims:

Claim 1 has been amended as following:

1. (Twice Amended) A system for automatically notifying a user of an awaiting message, comprising:

identification means for identifying a registered user of a wireless communication
system, the identification means being located in the wireless communication system;

[a] mail notification means for notifying the registered user of an awaiting message; and

communication means for checking for awaiting messages [for] in multiple mailboxes associated with the registered user, and for triggering the mail notification means if an awaiting message is present, wherein the multiple mailboxes being located in multiple messaging systems.

REASON FOR ALLOWANCE

3. Claims 1 and 3-18 are allowed over the prior art made of record.

4. The following is an examiner's statement of reasons for allowance:

The prior art made of record fail to teach or show a system for automatically notifying a user of an awaiting message comprises communication means for checking for awaiting messages in multiple mailboxes associated with the registered user, and for triggering the mail notification means if an awaiting message is present, wherein the multiple mailboxes being located in multiple messaging systems, and further the registered user can interact with the system and disable the system.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Hieu T. Vo whose telephone number is (703) 308-1951. The examiner can normally be reached on Monday through Friday from 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry C. Yuen, can be reached on (703) 308-1946. The fax phone number for this group is (703) 308-7764.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

HIEU T. VO
Patent Examiner
Art Unit 3747

HTV
November 5, 1998

Willis R. Wolfe
Primary Examiner
Art Unit 3747

EXAMINER'S CHECKLIST FOR ISSUE REVISION

A. DRAWINGS

- X IF FORMAL, HAS THE CLASSIFICATION/PRINT FIG BOX BEEN COMPLETED?
- NA IF NON-FORMAL, IS THE YELLOW TAG PRESENT?
- NA HAS THE PTOL-37 BEEN COMPLETED TO NOTIFY APPLICANT OF DRAWING REQUIREMENTS?
- X IS A BRIEF DESCRIPTION INCLUDED FOR EACH FIGURE?

B. PTO FORM(S) 892 AND 1449

- X IS AT LEAST ONE 892 IN THE FILE?
- X DO ALL OF THE REFERENCES CONTAIN MONTH AND YEAR? (##/####)

C. AMENDMENTS

- X HAVE ALL AMENDMENTS BEEN PLACED IN THE CENTER SECTION OF THE FILE?
- X HAS EACH AMENDMENT BEEN ENTERED AND LISTED IN THE "CONTENTS" OF THE FILE?
- X HAVE ALL OF THE EXAMINER'S CHANGES BEEN INITIALED?

D. SPECIFICATION

- X IS THERE ONLY ONE SPECIFICATION ENTERED AND ARE ALL PAGES PRESENT (none duplicated or missing)?
- NA HAS ALL CONTINUING DATA BEEN UPDATED AND IN AGREEMENT WITH THE FACE OF THE FILE?

E. CLAIMS

- X DOES THE TOTAL NO. IN THE "INDEX OF CLAIMS" CORRESPOND WITH THE PTOL-37 AND THE "CLAIMS ALLOWED" BOX ON THE FACE OF THE FILE?
- X HAVE THE CLAIMS BEEN RE-NUMBERED ON THE LEFT SIDE OF THE FILE WRAPPER?

F. ABSTRACT

- X IS THERE AN ABSTRACT CONTAINING NO MORE THAN 25 LINES OR 250 WORDS?

G. OATH/DECLARATION

- X IS THE OATH/DECLARATION SIGNED AND DOES IT HAVE A GOOD DATE?
- X IS AN OATH/DECLARATION PRESENT WITH THE FOLLOWING PHRASES:
  - X a. "The original, first, and sole" or "original, first and joint"?
  - X b. "reviewed and understand the contents of the specification including the claims"?
  - X c. "acknowledge the duty to disclose information in accordance with 1.56(a)?

H. FOREIGN PRIORITY

- NA DOES THE FACE OF THE FILE AGREE WITH THE OATH/DECLARATION?
- NA HAS PRIORITY BEEN ACKNOWLEDGED?

I. FILE WRAPPER

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- X IS THE BLUE SLIP PRESENT AND HAS IT BEEN COMPLETED (signed)?
- X IS THE COUNT SHEET PRESENT?

L. OFFICE ACTIONS

- X HAVE ALL THE OFFICE ACTIONS BEEN STAMPED AND SIGNED OR WILL BE STAMPED AND SIGNED BY THE S.P.E.?

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
First Named Applicant				

TITLE OF INVENTION

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.
If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

A. Pay FEE DUE shown above, or

B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number.
Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PATENT AND TRADEMARK OFFICE COPY

PART B—ISSUE FEE TRANSMITTAL

Complete and mail this form, togeth[illegible]pplicable fees, to: **Box ISSUE FEE**
Assistant Commissioner for Patents
Washington, D.C. 20231

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CURRENT CORRESPONDENCE ADDRESS (Note. Legibly mark-up with any corrections or use Block 1)

[illegible]

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Certificate of Mailing

I hereby certify that this Issue Fee Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above on the date indicated below.

Miriam C. Freeman
(Depositor's name)
Miriam C. Freeman
(Signature)
1/5/99
(Date)

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

First Named Applicant [illegible]

TITLE OF INVENTION [illegible]

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
[illegible]	[illegible]	[illegible]	[illegible]	NO	[illegible]	[illegible]

1. Change of correspondence address or indication of " Fee Address" (37 CFR 1.363). Use of PTO form(s) and Customer Number are recommended, but not required.

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47) attached.

2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 [illegible]
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)
PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the PTO or is being submitted under separate cover. Completion of this form is NOT a subsitiute for filing an assignment.

(A) NAME OF ASSIGNEE Siemens Information and Communication Networks, Inc.

(B) RESIDENCE: (CITY & STATE OR COUNTRY) Boca Raton, Florida

Please check the appropriate assignee category indicated below (will not be printed on the patent)

☐ Individual ☒ corporation or other private group entity ☐ government

4a. The following fees are enclosed (make check payable to Commissioner of Patents and Trademarks):

☐ Issue Fee

☐ Advance Order - # of Copies _____

4b. The following fees or deficiency in these fees should be charged to:

DEPOSIT ACCOUNT NUMBER 19-2179
(ENCLOSE AN EXTRA COPY OF THIS FORM)

☒ Issue Fee

☒ Advance Order - # of Copies 10

The COMMISSIONER OF PATENTS AND TRADEMARKS IS requested to apply the Issue Fee to the application identified above.

(Authorized Signature) [illegible] (Date) 12/22/98

NOTE; The Issue Fee will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the Patent and Trademark Office.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending on the needs of the individual case. Any comments on the amount of time required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND FEES AND THIS FORM TO: Box Issue Fee, Assistant Commissioner for Patents, Washington D.C. 20231

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01/13/1999 AHOHAMM 00000012 192179 08724295

01 FC:142 1210.00 CH
02 FC:561 30.00 CH

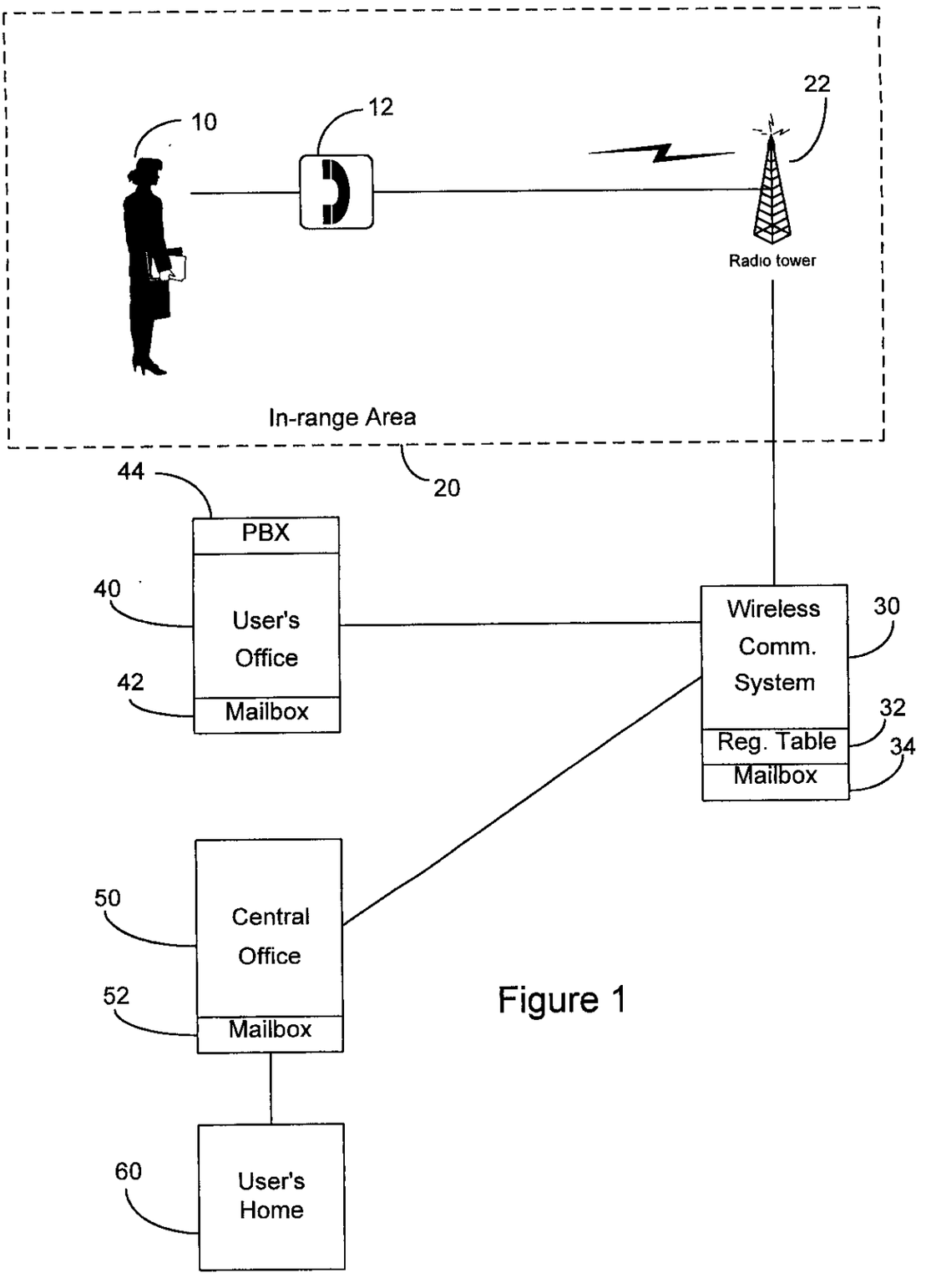


Figure 1

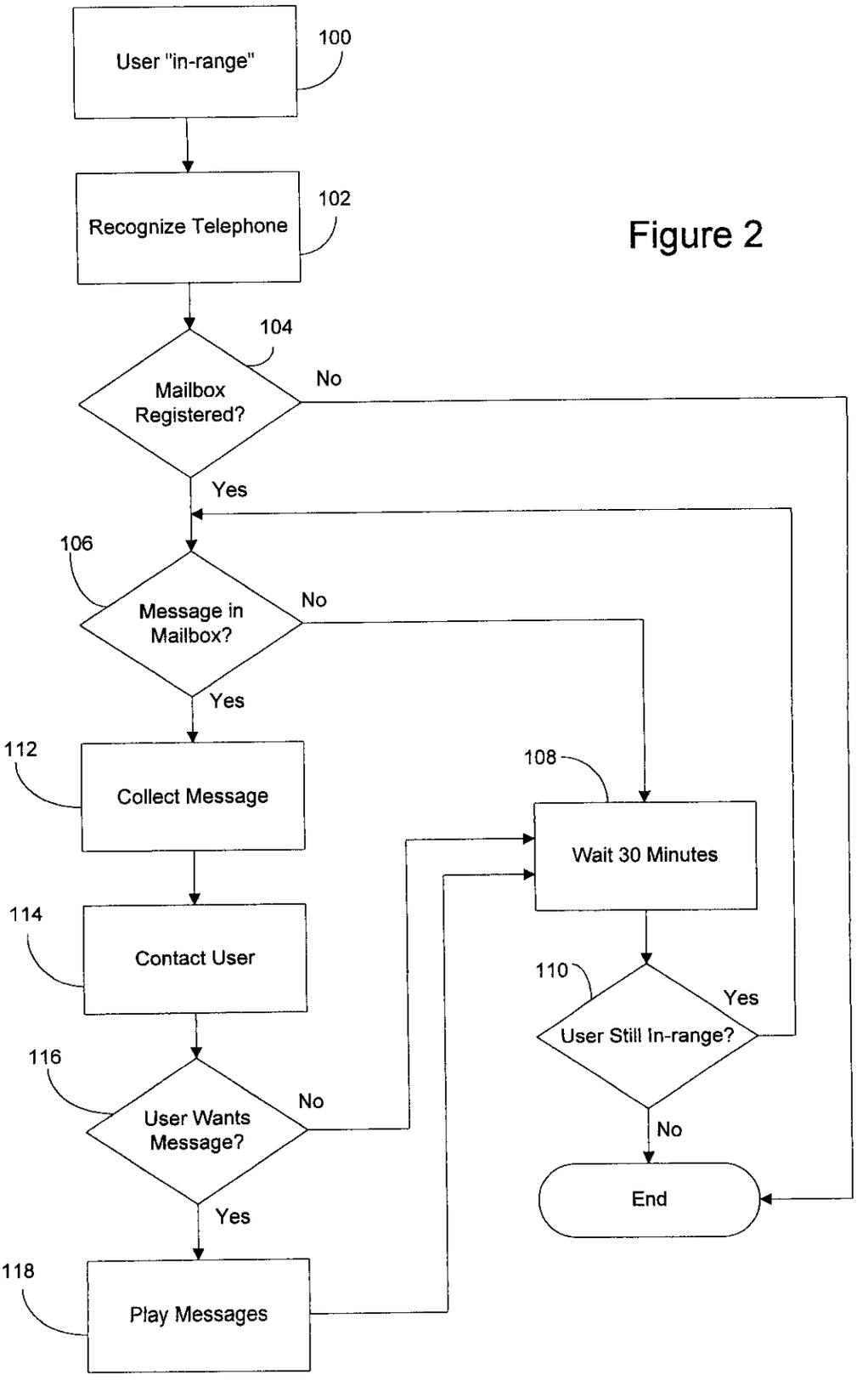
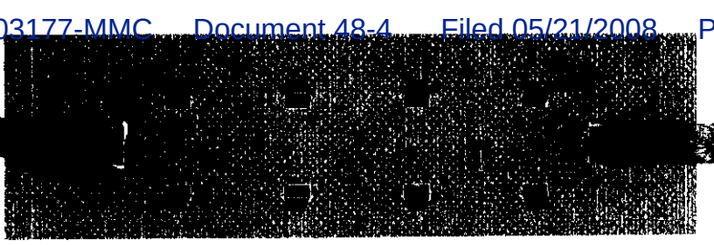

User "in-range"
100
Recognize Telephone
102
104
Mailbox Registered?
No
Yes
106
Message in Mailbox?
No
Yes
112
Collect Message
108
Wait 30 Minutes
114
Contact User
110
Yes
User Still In-range?
116
User Wants Message?
No
No
Yes
End
118
Play Messages

Figure 2



PTO UTILITY GRANT

Paper Number 8

The Commissioner of Patents and Trademarks

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.

If this application was filed prior to June 8, 1995, the term of this patent is the longer of seventeen years from the date of grant of this patent or twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.

If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the U.S. filing date, subject to an statutory extension. If the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121 or 365(c), the term of the patent is twenty years from the date on which the earliest application was filed, subject to any statutory extension.

Bruce Lehman

Commissioner of Patents and Trademarks

Attest

The United States of America

PATENT AND TRADEMARK OFFICE · UNITED STATES OF AMERICA

Form PTO-1584 (Rev. 2/97)

FPI-LOM

(RIGHT INSIDE)

PATENT APPLICATION FEE DETERMINATION RECORD

Effective October 1, 1995

Application or Docket Number 08/124,295

CLAIMS AS FILED - PART I

	(Column 1)	(Column 2)	SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE	FEE		RATE	FEE
BASIC FEE				375.00	OR		750.00
TOTAL CLAIMS	minus 20 =	*	x$11=		OR	x$22=	
INDEPENDENT CLAIMS	minus 3 =	*	x39=		OR	x78=	
MULTIPLE DEPENDENT CLAIM PRESENT			+125=		OR	+250=	
			TOTAL		OR	TOTAL	750

* If the difference in column 1 is less than zero, enter "0" in column 2

CLAIMS AS AMENDED - PART II

AMENDMENT A

	(Column 1)		(Column 2)	(Column 3)	SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
Total	*	Minus	**	=	x$11=		OR	x$22=	
Independent	*	Minus	***	=	x39=		OR	x78=	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					+125=		OR	+250=	
					TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

AMENDMENT B

	(Column 1)		(Column 2)	(Column 3)	SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
Total	*	Minus	**	=	x$11=		OR	x$22=	
Independent	*	Minus	***	=	x39=		OR	x78=	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					+125=		OR	+250=	
					TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

AMENDMENT C

	(Column 1)		(Column 2)	(Column 3)	SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
Total	*	Minus	**	=	x$11=		OR	x$22=	
Independent	*	Minus	***	=	x39=		OR	x78=	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					+125=		OR	+250=	
					TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20."
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3."
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

U.Best 11296

08/724295 1 091996 J 2603 370 002

017 002 0 750 4 967539-US

MPI Family Report (Family Bibliographic and Legal Status)

In the MPI Family report, all publication stages are collapsed into a single record, based on identical application data. The bibliographic information displayed in the collapsed record is taken from the latest publication.

Report Created Date: 2007-07-10

Name of Report:

Number of Families: 1

Comments:

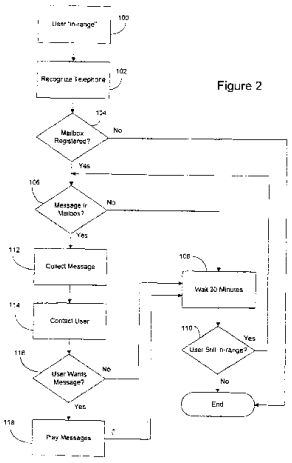
Table of Contents

Family1

3 records in the family, collapsed to 2 records.

EP0831664A3 19990721
EP0831664A2 19980325

(ENG) System and method for providing automated message notification in a wireless communication system



Assignee: ROLM SYSTEMS US

Inventor(s): BEYDA WILLIAM J US ; SHAFFER SHMUEL US

Application No: EP 97307300 A

Filing Date: 19970919

Issue/Publication Date: 19990721

Abstract: (ENG) A system and method are provided for automatically notifying a user of an awaiting message. A wireless communication system including an identification means is utilized. The identification means identifies a registered user of the wireless communication system. A mail notification system is used for notifying the registered user of an awaiting message. A communication means checks for awaiting messages for the identified registered user. If an awaiting message is present, the communication means triggers the mail notification system.

Priority Data: US 72429596 19960919 A;

IPC (International Class): H04M003537; H04M003533; H04Q00738

ECLA (European Class): H04M003533R; H04M003537; H04Q00738W; H04W00206

Designated Countries:

----Designated States: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Publication Language: ENG

Agent(s): Muir, Ian R. 00034151 Haseltine Lake & Co., Imperial House, 15-19 Kingsway London WC2B 6UD GB

Legal Status:

Date	+/-	Code	Description
19980325	(+)	17P	REQUEST FOR EXAMINATION FILED Effective date: 19971010;
19980325	(+)	AK	DESIGNATED CONTRACTING STATES: Kind code of corresponding patent document: A2; DE FR GB
19980325	(+)	AX	EXTENSION OF THE EUROPEAN PATENT TO : AL;LT;LV;RO;SI;
19990721	(+)	AK	DESIGNATED CONTRACTING STATES: Kind code of corresponding patent document: A3; AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
19990721	(+)	AX	EXTENSION OF THE EUROPEAN PATENT TO : AL;LT;LV;RO;SI;
20000329	(+)	AKX	PAYMENT OF DESIGNATION FEES

20000504		REG	REFERENCE TO A NATIONAL CODE : DE; : 8566;
20000517	(+)	RBV	DESIGNATED CONTRACTING STATES (CORRECTION): DE FR GB
20010131		RAP1	APPLICANT REASSIGNMENT (CORRECTION) New owner name: SIEMENS INFORMATION AND COMMUNICATION NETWORKS, IN;
20040428	(+)	17Q	FIRST EXAMINATION REPORT Effective date: 20040315;
20050209	(-)	18D	DEEMED TO BE WITHDRAWN Effective date: 20040726;

US5889839A 19990330

(ENG) System and method for providing automated message notification in a wireless communication system

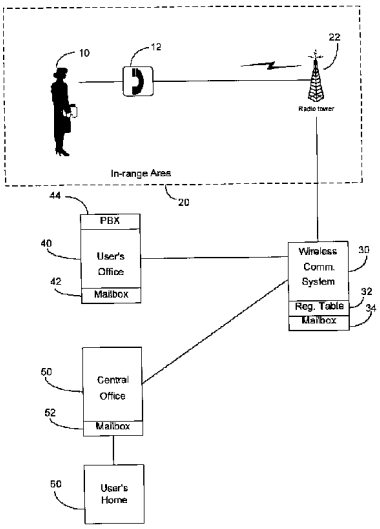
Assignee: SIEMENS INF & COMM NETWORKS US

Inventor(s): BEYDA WILLIAM J US ; SHAFFER SHMUEL US

Application No: US 72429596 A

Filing Date: 19960919

Issue/Publication Date: 19990330



Abstract: (ENG) A system and method are provided for automatically notifying a user of an awaiting message. A wireless communication system including an identification system is utilized. The identification means identifies a registered user of the wireless communication system. A mail notification system is used for notifying the registered user of an awaiting message. A communication system checks for awaiting messages for the identified registered user. If an awaiting message is present, the communication system triggers the mail notification system.

Priority Data: US 72429596 19960919 A;

IPC (International Class): H04M003537; H04M003533; H04Q00738

ECLA (European Class): H04M003533R; H04M003537; H04Q00738W; H04W00206

US Class: 37908812; 37908822; 37908825; 4554122; 455413

Agent(s): Vance Heather S.

Examiner Primary: Wolfe, Willis R.

Examiner Assistant: Vo, Hieu T.

Assignments Reported to USPTO:

Reel/Frame: 08243/0040 **Date Signed:** 19960919 **Date Recorded:** 19960919

Assignee: SIEMENS ROLM COMMUNICATIONS INC. M/S 210 4900 OLD IRONSIDES DR SANTA CLARA CALIFORNIA 95054

Assignor: BEYDA, WILLIAM J. ; SHAFFER, SHMUEL

Corres. Addr: ELSA KELLER SIEMENS 186 WOOD AVE ISELIN, NJ 08830

Brief: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Reel/Frame: 09672/0920 **Date Signed:** 19980930 **Date Recorded:** 19990104
Assignee: SIEMENS INFORMATION AND COMMUNICATION NETWORKS, INC. 900 BROKEN SOUND BLVD. BOCA RATON FLORIDA 33487

Assignor: SIEMENS BUSINESS COMMUNICATION SYSTEMS, INC.

Corres. Addr: SIEMENS CORPORATION ELSA KELLER INTELLECTUAL PROPERTY DEPARTMENT 186 WOOD AVENUE SOUTH ISELIN, NJ 08830
Brief: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Reel/Frame: 09718/0852 **Date Signed:** 19961001 **Date Recorded:** 19990104
Assignee: SIEMENS BUSINESS COMMUNICATION SYSTEMS, INC. 4900 OLD IRONSIDES DRIVE SANTA CLARA CALIFORNIA 95054

Assignor: SIEMENS ROLM COMMUNICATIONS INC.

Corres. Addr: SIEMENS CORPORATION ELSA KELLER INTELLECTUAL PROPERTY DEPARTMENT 186 WOOD AVENUE SOUTH ISELIN, NJ 08830
Brief: CERTIFICATE OF AMENDMENT OF CERTIFICATE OF INCORPORATION

Reel/Frame: 18160/0547 **Date Signed:** 20041001 **Date Recorded:** 20060822
Assignee: SIEMENS COMMUNICATIONS, INC. 900 BROKEN SOUND PARKWAY BOCA RATON FLORIDA 33487

Assignor: SIEMENS INFORMATION AND COMMUNICATION NETWORKS, INC.

Corres. Addr: SIEMENS CORPORATION INTELLECTUAL PROPERTY DEPARTMENT 170 WOOD AVENUE SOUTH ISELIN, NJ 08830
Brief: CHANGE OF NAME (SEE DOCUMENT FOR DETAILS).

Reel/Frame: 18375/0762 **Date Signed:** 20061002 **Date Recorded:** 20061012
Assignee: RESEARCH IN MOTION LIMITED 295 PHILLIP STREET WATERLOO, ONTARIO N2L 3W8 CANADA

Assignor: SIEMENS COMMUNICATION INC.

Corres. Addr: DANAMRAJ & YOUST, P.C. PREMIER PLACE, SUITE 1450 DALLAS, TX 75206
Brief: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Legal Status:

Date	+/-	Code	Description
19960919		AS02	ASSIGNMENT OF ASSIGNOR'S INTEREST New owner name: SIEMENS ROLM COMMUNICATIONS INC. M/S 210 4900 OLD; Effective date: 19960919;
19960919		AS02	ASSIGNMENT OF ASSIGNOR'S INTEREST New owner name: BEYDA, WILLIAM J.; Effective date: 19960919;
19960919		AS02	ASSIGNMENT OF ASSIGNOR'S INTEREST New owner name: SHAFFER, SHMUEL; Effective date: 19960919;
19990104		AS02	ASSIGNMENT OF ASSIGNOR'S INTEREST New owner name: SIEMENS INFORMATION AND COMMUNICATION NETWORKS, IN; Effective date: 19980930;
19990104		AS02	ASSIGNMENT OF ASSIGNOR'S INTEREST New owner name: SIEMENS BUSINESS COMMUNICATION SYSTEMS, INC.; Effective date: 19980930;
19990104		AS99	OTHER ASSIGNMENTS : SIEMENS BUSINESS

		COMMUNICATION SYSTEMS, INC. 4900 OLD IRONSIDES DRIVE SANTA CLAR * SIEMENS ROLM COMMUNICATIONS INC. : 19961001 OTHER CASES: NONE; CERTIFICATE OF AMENDMENT OF CERTIFICATE OF INCORPORATION;
20060822	AS	ASSIGNMENT New owner name: SIEMENS COMMUNICATIONS, INC., FLORIDA; : CHANGE OF NAME;ASSIGNOR:SIEMENS INFORMATION AND COMMUNICATION NETWORKS, INC.;REEL/FRAME:018160/0547; Effective date: 20041001;
20061012	AS	ASSIGNMENT New owner name: RESEARCH IN MOTION LIMITED, CANADA; : ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:SIEMENS COMMUNICATION INC.; REEL/FRAME:018375/0762; Effective date: 20061002;

USPTO Maintenance Report					
Patent Bibliographic Data			07/10/2007 05:43 PM		
Patent Number:	5889839		Application Number:	08724295	
Issue Date:	03/30/1999		Filing Date:	09/19/1996	
Title:	SYSTEM AND METHOD FOR PROVIDING AUTOMATED MESSAGE NOTIFICATION IN A WI				
Status:	12th year fee window opens: 03/30/2010			Entity:	Large
Window Opens:	03/30/2010	Surcharge Date:	10/01/2010	Expiration:	N/A
Fee Amt Due:	Window not open	Surchg Amt Due:	Window not open	Total Amt Due:	Window not open
Fee Code:	1553	MAINTENANCE FEE DUE AT 11.5 YEARS			
Surcharge Fee Code:					
Most recent events (up to 7):	08/07/2006 09/25/2002 08/20/2002	Payment of Maintenance Fee, 8th Year, Large Entity. Payor Number Assigned. Payment of Maintenance Fee, 4th Year, Large Entity. --- End of Maintenance History ---			
Address for fee purposes:	SIEMENS CORPORATION INTELLECTUAL PROPERTY DEPARTMENT 170 WOOD AVENUE SOUTH ISELIN, NJ 08830				

Request for Ex Parte Reexamination of U.S. Patent No. 5,889,839

Exhibit PAT-C

Patent Assignment Abstract of Title for U.S. Patent No. 5,889,839

United States Patent and Trademark Office

Assignments on the Web > Patent Query

Patent Assignment Abstract of Title

NOTE:Results display only for issued patents and published applications. For pending or abandoned applications please consult USPTO staff.

Total Assignments: 5

Patent #: 5889839 **Issue Dt:** 03/30/1999 **Application #:** 08724295 **Filing Dt:** 09/19/1996

Inventors: WILLIAM J. BEYDA, SHMUEL SHAFFER

Title: SYSTEM AND METHOD FOR PROVIDING AUTOMATED MESSAGE NOTIFICATION IN A WIRELESS COMMUNICATION SYSTEM

Assignment: 1

Reel/Frame: 008243/0040 **Recorded:** 09/19/1996 **Pages:** 4

Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Assignors: BEYDA, WILLIAM J. **Exec Dt:** 09/19/1996

SHAFFER, SHMUEL **Exec Dt:** 09/19/1996

Assignee: SIEMENS ROLM COMMUNICATIONS INC.
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4900 OLD IRONSIDES DR
SANTA CLARA, CALIFORNIA 95054

Correspondent: ELSA KELLER
SIEMENS
186 WOOD AVE
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Assignment: 2

Reel/Frame: 009718/0852 **Recorded:** 01/04/1999 **Pages:** 4

Conveyance: CERTIFICATE OF AMENDMENT OF CERTIFICATE OF INCORPORATION

Assignor: SIEMENS ROLM COMMUNICATIONS INC. **Exec Dt:** 10/01/1996

Assignee: SIEMENS BUSINESS COMMUNICATION SYSTEMS, INC.
4900 OLD IRONSIDES DRIVE
SANTA CLARA, CALIFORNIA 95054

Correspondent: SIEMENS CORPORATION
ELSA KELLER
INTELLECTUAL PROPERTY DEPARTMENT
186 WOOD AVENUE SOUTH
ISELIN, NJ 08830

Assignment: 3

Reel/Frame: 009672/0920 **Recorded:** 01/04/1999 **Pages:** 4

Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Assignor: SIEMENS BUSINESS COMMUNICATION SYSTEMS, INC. **Exec Dt:** 09/30/1998

Assignee: SIEMENS INFORMATION AND COMMUNICATION NETWORKS, INC.
900 BROKEN SOUND BLVD.
BOCA RATON, FLORIDA 33487

Correspondent: SIEMENS CORPORATION
ELSA KELLER
INTELLECTUAL PROPERTY DEPARTMENT
186 WOOD AVENUE SOUTH
ISELIN, NJ 08830

Assignment: 4

Reel/Frame: 018160/0547 **Recorded:** 08/22/2006 **Pages:** 4

Conveyance: CHANGE OF NAME (SEE DOCUMENT FOR DETAILS).

Assignor: SIEMENS INFORMATION AND COMMUNICATION NETWORKS, INC. **Exec Dt:** 10/01/2004

Assignee: SIEMENS COMMUNICATIONS, INC.
900 BROKEN SOUND PARKWAY
BOCA RATON, FLORIDA 33487

Correspondent: SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

Assignment: 5

Reel/Frame: 018375/0762 **Recorded:** 10/12/2006 **Pages:** 3

Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Assignor: SIEMENS COMMUNICATION INC. **Exec Dt:** 10/02/2006

Assignee: RESEARCH IN MOTION LIMITED
295 PHILLIP STREET
WATERLOO, ONTARIO, CANADA N2L 3W8

Correspondent: DANAMRAJ & YOUST, P.C.
PREMIER PLACE, SUITE 1450
DALLAS, TX 75206

Search Results as of: 05/15/2008 01:59 PM
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Web interface last modified: April 20, 2007 v.2.0.1

Request for Ex Parte Reexamination of U.S. Patent No. 5,889,839

Exhibit CC-A

Claim Chart for U.S. Patent 5,742,905, to Pepe et al.

EXHIBIT CC-A TO REQUEST FOR EX PARTE REEXAMINATION OF U.S. PATENT 8,889,839
CLAIM CHART FOR:
U.S. Patent 5,742,905, Pepe et al., "Personal Communications Internetworking," filed Sep. 19, 1994, issued Apr. 21, 1998

CLAIMS OF U.S. PATENT 5,889,839	PRIOR ART CITATIONS
1. A system for automatically notifying a user of an awaiting message, comprising:	U.S. 5742905 discloses a system for automatically notifying a user of an awaiting message. See e.g., col. 6, ll. 11-19: "For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager, and notification that a fax has been received may be rerouted to the wireline e-mail." See e.g., col. 3 ll. 10-17: "The user may need to send or receive messages from any or all of the messaging options described above at a visiting location. That is, the user may want to receive or receive notification of e-mail, faxes, phone calls, or voice mail at a visiting location or to send e-mail or faxes from a wireless terminal. The need to integrate these various types of messaging options and to interconnect the many service providers has, until now, been largely unaddressed." See e.g., col. 17 ll. 23-27: "The PCI server 48 server receives the registration request and checks if the subscriber is provisioned and if the subscriber ID and password are correct. The PCI server then sends a registration acknowledgement (line 302)."

EXHIBIT CC-A TO REQUEST FOR EX PARTE REEXAMINATION OF U.S. PATENT 8,889,839
CLAIM CHART FOR:
U.S. Patent 5,742,905, Pepe et al., "Personal Communications Internetworking,"
filed Sep. 19, 1994, issued Apr. 21, 1998

identification means for identifying a registered user of a wireless communication system, the identification means being located in the wireless communication system;	U.S. 5742905 discloses identification means for identifying a registered user of a wireless communication system, the identification means being located in the wireless communication system. See e.g., col. 17 ll. 23-27: "The PCI server 48 server receives the registration request and checks if the subscriber is provisioned and if the subscriber ID and password are correct. The PCI server then sends a registration acknowledgement (line 302)." See e.g., col. 5, ll. 28-67: "FIG. 1 is a simplified overview of a personal communications internetworking ("PCI") according to the present invention. A consumer, an office for example, has various messaging equipment, such as a voice mail system 20, an e-mail terminal 22, fax machines 24, and telephones 26. These are all connected to wireline networks 29. For example, the fax 24, phone 26, and voicemail system 20 may be connected to a Public Switched Telephone Network (PSTN), part of which belongs to a particular local phone service company, and part of which belongs to a particular long distance service provider. The e-mail terminal 22 may be connected to a data packet network, such as Internet, whose packets are carried over phone lines. A mobile communications subscriber (for example an employee who works at the office described above and travels frequently) has various portable messaging equipment, such as a PDA 30, a cellular phone 32, and a pager 34. These are connected to wireless networks 39. These wireless messaging options may be provided by different service providers. That is, the cellular phone may be connected to a wireless network of a cellular phone service provider, the pager may be connected to a different wireless network maintained by a pager service provider, and the PDA may be connected to a third wireless communications network maintained by yet

EXHIBIT CC-A TO REQUEST FOR EX PARTE REEXAMINATION OF U.S. PATENT 8,889,839
CLAIM CHART FOR:
U.S. Patent 5,742,905, Pepe et al., "Personal Communications Internetworking,"
filed Sep. 19, 1994, issued Apr. 21, 1998

	another service provider." "A Personal Communications Internetworking network ("PCI") 40 according to the present invention is connected between the wireless 39 and wireline networks 29. The PCI 40 permits the mobile communications subscriber to send and receive messages between disparate networks and messaging systems and a variety of service providers. The mobile communications subscriber can receive e-mail, fax, pages, and voice messages under a single phone number while using either a wireless or wireline network. The subscriber may also select the media format and serving network used to receive messages. The subscriber may also select cross-media notification of incoming messages, (i.e., the subscriber may receive notification from a pager message that a voice mail message was received)." See e.g., col. 6, ll. 34-51: "The PCI database 44 supports access to information authenticating the subscriber's identity and validating the types of services subscribed to, the subscriber's message delivery (incoming messages) options and origination (outgoing messages) options and voice (telephone call and voice mail) options. For origination, the subscriber may select message distribution lists with specific media delivery options. The database 44 also supports access to the portions of the subscriber profile that the subscriber may control. The subscriber may use a personal telephone number to register at alternate wireline and wireless terminals while maintaining use of the message screening and delivery options selected and stored in a subscriber's profile. This is called "personal mobility". Information about the location of a wireless or wireline network location to which the subscriber's terminal is connected automatically registers and deregisters a subscriber's terminal. This is called 'terminal mobility.'" See e.g., col. 7 ll. 4-16:

EXHIBIT CC-A TO REQUEST FOR EX PARTE REEXAMINATION OF U.S. PATENT 8,889,839
CLAIM CHART FOR:
U.S. Patent 5,742,905, Pepe et al., "Personal Communications Internetworking," filed Sep. 19, 1994, issued Apr. 21, 1998

	"The PCI database 44 preferably stores and updates the subscriber profiles. The profiles contain service related information for mapping services to subscribers (e.g.. screening. routing. terminal selection by subscriber selected parameters. custom calling features. and the like); subscriber authentication data (e.g.. password and user I.D.); user status (registered or not registered); generic service profile for non-call associated service. such as subscriber address or social security number; specific profile for a non-call service (based on subscriber selected parameters); wireless data providers identification (e.g. what cellular phone provider is used); and specific profile for call associated services (e.g. call forwarding). based on user selected parameters." See e.g., col. 2 li 7 - col. 3 li 9: "The interoperability problem for location tracking has been addressed by adopting signaling protocols used by the mobile phone industry. Location tracking functions are implemented using two location registers. One of the registers. maintained by the local telephone company of the user's home location, is called the Home Location Register (HLR). The other register. maintained by the local telephone company of the visiting location. is called the Visiting Location Register (VLR). The HLR stores customer profile data and the location of the VLR of the user. The customer profile data contains important information such as the user's name, address. preferred long distance carrier. service features (e.g.. call forwarding and call restriction). billing. and other administrative related information. When the user travels to a new visiting location. a new VLR is created in the new location. Apart of the profile data stored in the HLR is transmitted and loaded into the VLR such that the service provider at the visiting location can implement service features for the visiting user. When the user travels to a new visiting location the location of the VLR stored in the HLR is changed to the new VLR location. and the VLR in the previously visited location is deleted. The process of creating a new VLR. loading profile data to the VLR. and updating the visiting location of a user in the HLR is called 'automatic roamer registration'.

EXHIBIT CC-A TO REQUEST FOR EX PARTE REEXAMINATION OF U.S. PATENT 8,889,839
CLAIM CHART FOR:
U.S. Patent 5,742,905, Pepe et al., "Personal Communications Internetworking," filed Sep. 19, 1994, issued Apr. 21, 1998

	The interoperability problem for service management is much more complex than that for location tracking. Service management refers to a collection of functions required to enable a personal communication service user to subscribe to, modify, and activate service features anywhere and at any time. Examples of service management functions include phone number administration. customer profile data management. service activation. and security administration. The phone number administration function is important for maintaining the uniqueness of phone numbers. The customer profile data management function provides customer profile databases and user interfaces for creating. modifying, or transferring such databases. The service activation function extracts part of the data specifying service features from the profile data and loads this data into physical communication systems that process calls. The service activation function also controls the activation and deactivation of the service features. The security administration function prevents or detects unauthorized uses of services and service management functions. Service management functions of this type are needed to provide personal communication services involving multiple service providers. Such service management functions generally require interactions between application software and various databases owned and operated by the different service providers. Consider an application which enables a nomadic user to subscribe to a personal communication service from any service provider at any location. An example of such a service is call forwarding to a temporarily rented portable phone. The application may, for example, need to perform the following database access operations at databases maintained by various different service providers: check credit databases owned by credit card companies or phone companies to determine whether the user is able to pay for the service; check the customer profile database in the user's HLR to determine whether the user is currently located in a place other than the visiting location currently stored in the HLR;

	check the credit and network databases of long distance phone companies specified by the user to determine whether the user can use a particular long distance carrier in the visiting location; load profile data into the VLR at the visiting location and update the HLR with the location of the VLR if necessary; and load the profile data to the call processing systems and activate the service."
mail notification means for notifying the registered user of an awaiting message; and	U.S. 5742905 discloses mail notification means for notifying the registered user of an awaiting message. See e.g., col. 3 ll. 10-17: "The user may need to send or receive messages from any or all of the messaging options described above at a visiting location. That is, the user may want to receive or receive notification of e-mail, faxes, phone calls, or voice mail at a visiting location or to send e-mail or faxes from a wireless terminal. The need to integrate these various types of messaging options and to interconnect the many service providers has, until now, been largely unaddressed." See e.g., col. 6, ll. 11-19: "For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager, and notification that a fax has been received may be rerouted to the wireline e-

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	mail." See e.g., col. 17 ll. 23-27: "The PCI server 48 server receives the registration request and checks if the subscriber is provisioned and if the subscriber ID and password are correct. The PCI server then sends a registration acknowledgement (line 302)." See also col. 17 ll. 52-65: "Once the subscriber is registered for either the CallCommand service or the wireless messaging service. the subscriber remains registered until the subscriber explicitly deregisters by either quitting the application or clicking the deregistration button on the PDA 30. The subscriber can also be implicitly deregistered for the wireless messaging service by the PO server 48 provided the PCI did not detect any wireless messaging activities to or from that subscriber for a given duration of time. Although the subscriber is deregistered. the subscriber's service profile will remain in the service profile cache 51. The profile remains in the cache as long as the PCI server has some activity for the subscriber, such as incoming e-mail messages within a predetermined time, such as four hours."
communication means for checking for awaiting messages in multiple mailboxes associated with the registered user, and for triggering the mail notification means if an awaiting message is present, wherein the multiple mailboxes being located in multiple messaging systems.	U.S. 5742905 discloses communication means for checking for awaiting messages in multiple mailboxes associated with the registered user, and for triggering the mail notification means if an awaiting message is present, wherein the multiple mailboxes being located in multiple messaging systems. See e.g., col. 5 ll. 54-67: "A Personal Communications Internetworking network ("PCI") 40 according to the present invention is connected between the wireless 39 and wireline networks 29. The PCI 40 permits the mobile communications subscriber to send and receive messages

	between disparate networks and messaging systems and a variety of service providers. The mobile communications subscriber can receive e-mail, fax, pages, and voice messages under a single phone number while using either a wireless or wireline network. The subscriber may also select the media format and serving network used to receive messages. The subscriber may also select cross-media notification of incoming messages. (i.e. the subscriber may receive notification from a pager message that a voice mail message was received)." See also col. 23 ll. 23-33: "The PCI uses personal communications service-integration capabilities to integrate the wireless service capabilities available to the subscriber. This is accomplished by providing the subscriber with control over the message routing and delivery by the subscriber accessible "subscriber profile" stored in the PO. The subscriber profile contains subscriber programmed instructions on message receipt. origination. and notification. Thus, PCI operates as a messaging gateway for providing access to multiple wireline and wireless networks, while using subscriber profile information to control sending and receiving options." See also col. 5 ll. 41-53: "A mobile communications subscriber (for example an employee who works at the office described above and travels frequently) has various portable messaging equipment. such as a PDA 30. a cellular phone 32. and a pager 34. These are connected to wireless networks 39. These wireless messaging options may be provided by different service providers. That is. the cellular phone may be connected to a wireless network of a cellular phone service provider. the pager may be connected to a different wireless network maintained by a pager service provider, and the PDA may be connected to a third wireless communications network maintained by yet another service provider."

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	See also col. 8 ll. 1-7: "Data storage functions are handled by two tiered entities. The subscriber profile is preferably located in the PCI database 44 and is the top of the hierarchy where permanent records such as service profile. authentication and validation information. and the like of the subscriber or device are maintained and performing status and location management and mapping are performed." See also col. 6, ll. 1-20; see also Figs. 1-4: "The subscriber selects the wireline or wireless network and media format to be used for delivering messages or notification of message receipt. The PCI 40 will perform a media conversion to allow, for instance, an e-mail message to be delivered to a fax server. The PCI 40 may also include accessibility controls which allow the user to screen messages by selected criteria such as media type (e.g., e-mail, fax, etc.), message length (e.g., voice mail messages less than three minutes), or sender (e.g., only messages from the office and a certain client are to be forwarded). For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager, and notification that a fax has been received may be rerouted to the wireline e-mail. See e.g. col. 7 ll. 39-67, "The PCI server 48 is also connected to various wireless and wireline networks 49 via signaling connections in these networks to transmit and receive information for all of the messaging options. Illustratively, the PCI server provides access to Public Packet

	Switched Networks (PPSN), Public Switched Telephone Network, (PSTN), Integrated Signaling Digital Networks (ISDN), X.25 networks and TCP/IP networks and may include access to asynchronous transfer mode (ATM), Switched Multimegabit Digital Service (SMDS), and Frame Relay networks. The mobile subscriber may access his or her subscriber profile to change message sending, message receiving, and service control options. These option changes are sent to the PCI database 44 to be stored in the subscriber profile. FIG. 4 shows, for example, a PDA 30 connected to the PCI server 48 by a wireless network 54, but the subscriber may also use wireline e-mail, or wireless or wireline telephones (using DTMF signals) to access the subscriber profile. The messages from the PDA, for example, are sent by a wireless network 54 to the PCI server 48 using, for example, an X.25 transport. Delivering PCI service to a subscriber who may be present on a number of different systems requires storage, movement and caching of the service profile associated with that subscriber. A mobility controller 49. located in the PCI server 48. is a controller and data store. which dynamically maintains service control information for a Message Transfer Agent (MTA). described below. in the PCI server 48, which connects the PCI server 48 to wireless data networks" See also, col. 8, ll. 31-53: II. The PCI Server "The PCI server 48 is a peripheral which performs messaging and call redirection functions and interfaces with the PCI Database to update the subscriber profile. The PCI server performs a variety of functions. For example, an illustrative PCI server: is an X.400 Gateway;

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	routes messages using the X.400 messaging protocol; connects proprietary messaging protocols into X.400 protocol; interfaces with wireless data networks; interfaces with messaging systems; interfaces with the PCI database to access subscriber profiles information; processes messages as specified by the user in the service profile; provides media conversion such as text to fax or fax to text; provides access to an X.500 directory to determine addressing schemes for packet data; supports signaling between wireless data networks for management functions such as registration; and maintains a service profile cache." See also, col. 10-11, ll. 55-13: "For example, when a wireline e-mail message arrives at the PCI server's Data Messaging Peripheral 112, the messaging gateway 140 and messaging Controller 136 send notification to the PCI application server 114 of the e-mail arrival. The PCI application server 114 will query the profile cache 51, or if necessary, the PCI database 44. Driven by data in the subscriber's profile, the PCI application server 114 executes service logic to determine where to forward the e-mail (i.e., forward to PDA 30 or to POP server 190 depending on screening outcome), and what media, if any, to use to send notification of the e-mail arrival.

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	For another example, when a CallCommand call arrives at the PCI server 48, the procedure is as follows. The switch controller 152 and transaction controller 150 forward the call to the IP Functions Server 130 based on the dialed number. The IP functions 130 sends a provide.sub.-- instructions 1129+ message to the PCI database 44 to determine how to handle the call. The PCI database 44 and IP functions applications servers 130 begin a conversation of messages which perform a sequence of functions which play an announcement to the caller, send notification to the PDA, etc. When a response arrives from the PDA 30, the IP functions server 130 forwards the response to the PCI database 44. The PCI database 44 will then direct IP functions server 130 to forward the call to a routing number and/or play a synthesized message to the caller." See also, col. 6, ll. 11-51: "For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating. the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager. and notification that a fax has been received may be rerouted to the wireline e-mail. FIG. 2 is a simplified version of the interconnections between various messaging systems and a PCl As shown in FIG. 2. a subscriber provides the network with message routing and delivery instructions. These instructions are received by a PCI database 44 and stored in a "subscriber profile" for that subscriber. This database controls the delivery of outgoing messages and the routing of incoming messages and message notification. (In FIG. 2. wireline communications are indicated with solid line connections and wireless communications are indicated with dashed line connections. The instructions to the PCI are shown with a solid line, but as will be explained in greater detail below, the instructions may be sent either by a wireline or wireless

	network.) The PCI database 44 supports access to information authenticating the subscriber's identity and validating the types of services subscribed to, the subscriber's message delivery (incoming messages) options and origination (outgoing messages) options and voice (telephone call and voice mail) options. For origination. the subscriber may select message distribution lists with specific media delivery options. The database 44 also supports access to the portions of the subscriber profile that the subscriber may control. The subscriber may use a personal telephone number to register at alternate wireline and wireless terminals while maintaining use of the message screening and delivery options selected and stored in a subscriber's profile. This is called "personal mobility". Information about the location of a wireless or wireline network location to which the subscriber's terminal is connected automatically registers and deregisters a subscriber's terminal. This is called "terminal mobility." See also, col. 3 ll. 10-17: "The user may need to send or receive messages from any or all of the messaging options described above at a visiting location. That is, the user may want to receive or receive notification of e-mail, faxes, phone calls, or voice mail at a visiting location or to send e-mail or faxes from a wireless terminal. The need to integrate these various types of messaging options and to interconnect the many service providers has, until now, been largely unaddressed." See also, col. 4 li. 57 - col. 5 li. 5: "A. E-Mail Messaging E-Mail messaging in the PCl is illustrated in FIG. 21. The PCI network provides the subscriber with a variety of e-mail delivery, receipt. and notification options, including

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	screening and selective destination delivery of incoming e-mail. B. Voice Messaging Voice messaging in the PCl is illustrated in FIG. 22. The PCl provides the subscriber with a variety of voice mail delivery, receipt, and notification options, including screening and selective destination delivery of incoming voice mail. C. Facsimile Messaging Facsimile messaging in the PCI is illustrated in FIG. 23. The PCI provides the subscriber with a variety of facsimile delivery, receipt, and notification options. including screening and selective destination delivery of incoming faxes."
2. The system for automatically notifying a user of an awaiting message of claim 1, wherein the communication means checks each of the multiple mailboxes on a periodic basis.	U.S. 5742905 discloses a system for automatically notifying a user of an awaiting message of claim 1, wherein the communication means checks each of the multiple mailboxes on a periodic basis. See e.g. col. 23 ll. 23-33: "The PCI uses personal communications service-integration capabilities to integrate the wireless service capabilities available to the subscriber. This is accomplished by providing the subscriber with control over the message routing and delivery by the subscriber accessible "subscriber profile" stored in the PO. The subscriber profile contains subscriber programmed instructions on message receipt. origination. and notification. Thus, PCI operates as a messaging gateway for providing access to multiple wireline and wireless networks, while using subscriber profile information to control sending and receiving options." See also col. 18, ll. 41-45: "The stored time-stamp of a registered subscriber is periodically compared to the current time. When a predetermined time elapses, the PO server 48 assumes that the subscriber is out of radio coverage or has quit the PCI application."

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3. The system for automatically notifying a user of an awaiting message of claim 1, wherein the mail notification means is a voice mail notification system.	U.S. 5742905 discloses a system for automatically notifying a user of an awaiting message of claim 1, wherein the mail notification means is a voice mail notification system. See e.g., col. 5 ll. 54-67: "A Personal Communications Internetworking network ("PCI") 40 according to the present invention is connected between the wireless 39 and wireline networks 29. The PCI 40 permits the mobile communications subscriber to send and receive messages between disparate networks and messaging systems and a variety of service providers. The mobile communications subscriber can receive e-mail, fax, pages, and voice messages under a single phone number while using either a wireless or wireline network. The subscriber may also select the media format and serving network used to receive messages. The subscriber may also select cross-media notification of incoming messages. (i.e. the subscriber may receive notification from a pager message that a voice mail message was received)." See also col. 6, ll. 1-20; see also Figs. 1-4: "The subscriber selects the wireline or wireless network and media format to be used for delivering messages or notification of message receipt. The PCI 40 will perform a media conversion to allow, for instance, an e-mail message to be delivered to a fax server. The PCI 40 may also include accessibility controls which allow the user to screen messages by selected criteria such as media type (e.g., e-mail, fax, etc.), message length (e.g., voice mail messages less than three minutes), or sender (e.g., only messages from the office and a certain client are to be forwarded). For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's

	wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager, and notification that a fax has been received may be rerouted to the wireline e-mail. See also, col. 8, ll. 31-53: II. The PCI Server "The PCI server 48 is a peripheral which performs messaging and call redirection functions and interfaces with the PCI Database to update the subscriber profile. The PCI server performs a variety of functions. For example, an illustrative PCI server: is an X.400 Gateway; routes messages using the X.400 messaging protocol; connects proprietary messaging protocols into X.400 protocol; interfaces with wireless data networks; interfaces with messaging systems; interfaces with the PCI database to access subscriber profiles information; processes messages as specified by the user in the service profile; provides media conversion such as text to fax or fax to text; provides access to an X.500 directory to determine addressing schemes for packet

	data; supports signaling between wireless data networks for management functions such as registration; and maintains a service profile cache." See also, col. 10-11, ll. 55-13: "For example, when a wireline e-mail message arrives at the PCI server's Data Messaging Peripheral 112, the messaging gateway 140 and messaging Controller 136 send notification to the PCI application server 114 of the e-mail arrival. The PCI application server 114 will query the profile cache 51, or if necessary, the PCI database 44. Driven by data in the subscriber's profile, the PCI application server 114 executes service logic to determine where to forward the e-mail (i.e., forward to PDA 30 or to POP server 190 depending on screening outcome), and what media, if any, to use to send notification of the e-mail arrival. For another example, when a CallCommand call arrives at the PCI server 48, the procedure is as follows. The switch controller 152 and transaction controller 150 forward the call to the IP Functions Server 130 based on the dialed number. The IP functions 130 sends a provide.sub.-- instructions 1129+ message to the PCI database 44 to determine how to handle the call. The PCI database 44 and IP functions applications servers 130 begin a conversation of messages which perform a sequence of functions which play an announcement to the caller, send notification to the PDA, etc. When a response arrives from the PDA 30, the IP functions server 130 forwards the response to the PCI database 44. The PCI database 44 will then direct IP functions server 130 to forward the call to a routing number and/or play a synthesized message to the caller." See also, col. 6, ll. 11-19: "For example, the subscriber may have notification of a voice mail or fax message

	receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager, and notification that a fax has been received may be rerouted to the wireline e-mail." See also, col. 3 ll. 10-17: "The user may need to send or receive messages from any or all of the messaging options described above at a visiting location. That is, the user may want to receive or receive notification of e-mail, faxes, phone calls, or voice mail at a visiting location or to send e-mail or faxes from a wireless terminal. The need to integrate these various types of messaging options and to interconnect the many service providers has, until now, been largely unaddressed." See also, col. 4 li. 57 - col. 5 li. 5: "A. E-Mail Messaging E-Mail messaging in the PCl is illustrated in FIG. 21. The PCI network provides the subscriber with a variety of e-mail delivery, receipt. and notification options, including screening and selective destination delivery of incoming e-mail. B. Voice Messaging Voice messaging in the PCl is illustrated in FIG. 22. The PCl provides the subscriber with a variety of voice mail delivery, receipt, and notification options, including screening and selective destination delivery of incoming voice mail. C. Facsimile Messaging Facsimile messaging in the PCI is illustrated in FIG. 23. The PCI provides the subscriber with a variety of facsimile delivery, receipt, and notification options. including screening and selective destination delivery of incoming faxes."

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4. The system for automatically notifying a user of an awaiting message of claim 1, wherein the mail notification means connects the registered user with a mailbox in a messaging system containing the awaiting message.	U.S. 5742905 discloses a system for automatically notifying a user of an awaiting message of claim 1, wherein the mail notification means connects the registered user with a mailbox in a messaging system containing the awaiting message. See e.g., col. 5 ll. 54-67: "A Personal Communications Internetworking network ("PCI") 40 according to the present invention is connected between the wireless 39 and wireline networks 29. The PCI 40 permits the mobile communications subscriber to send and receive messages between disparate networks and messaging systems and a variety of service providers. The mobile communications subscriber can receive e-mail, fax, pages, and voice messages under a single phone number while using either a wireless or wireline network. The subscriber may also select the media format and serving network used to receive messages. The subscriber may also select cross-media notification of incoming messages. (i.e. the subscriber may receive notification from a pager message that a voice mail message was received)." See also col. 23 ll. 23-33: "The PCI uses personal communications service-integration capabilities to integrate the wireless service capabilities available to the subscriber. This is accomplished by providing the subscriber with control over the message routing and delivery by the subscriber accessible "subscriber profile" stored in the PO. The subscriber profile contains subscriber programmed instructions on message receipt. origination. and notification. Thus, PCI operates as a messaging gateway for providing access to multiple wireline and wireless networks, while using subscriber profile information to control sending and receiving options." See also col. 6, ll. 1-20; see also Figs. 1-4: "The subscriber selects the wireline or wireless network and media format to be used

	for delivering messages or notification of message receipt. The PCI 40 will perform a media conversion to allow, for instance, an e-mail message to be delivered to a fax server. The PCI 40 may also include accessibility controls which allow the user to screen messages by selected criteria such as media type (e.g., e-mail, fax, etc.), message length (e.g., voice mail messages less than three minutes), or sender (e.g., only messages from the office and a certain client are to be forwarded). For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager, and notification that a fax has been received may be rerouted to the wireline e-mail. See e.g. col. 7 ll. 39-59., "The PCI server 48 is also connected to various wireless and wireline networks 49 via signaling connections in these networks to transmit and receive information for all of the messaging options. Illustratively, the PCI server provides access to Public Packet Switched Networks (PPSN), Public Switched Telephone Network, (PSTN), Integrated Signaling Digital Networks (ISDN), X.25 networks and TCP/IP networks and may include access to asynchronous transfer mode (ATM), Switched Multimegabit Digital Service (SMDS), and Frame Relay networks. The mobile subscriber may access his or her subscriber profile to change message sending, message receiving, and service control options. These option changes are sent to the PCI database 44 to be stored in the subscriber profile. FIG. 4 shows, for example, a PDA 30 connected to the PCI server 48 by a wireless network 54, but the subscriber may also use wireline e-mail, or wireless or wireline telephones (using DTMF signals) to access the subscriber profile. The messages from the PDA, for

	example, are sent by a wireless network 54 to the PCI server 48 using, for example, an X.25 transport." See also, col. 7, ll. 39-48: "The PCI server 48 is also connected to various wireless and wireline networks 49 via signaling connections in these networks to transmit and receive information for all of the messaging options. Illustratively, the PCI server provides access to Public Packet Switched Networks (PPSN), Public Switched Telephone Network, (PSTN), Integrated Signaling Digital Networks (ISDN), X.25 networks and TCP/IP networks and may include access to asynchronous transfer mode (ATM), Switched Multimegabit Digital Service (SMDS), and Frame Relay networks." See also, col. 8, ll. 31-53: II. The PCI Server "The PCI server 48 is a peripheral which performs messaging and call redirection functions and interfaces with the PCI Database to update the subscriber profile. The PCI server performs a variety of functions. For example, an illustrative PCI server: is an X.400 Gateway; routes messages using the X.400 messaging protocol; connects proprietary messaging protocols into X.400 protocol; interfaces with wireless data networks; interfaces with messaging systems;

	interfaces with the PCI database to access subscriber profiles information; processes messages as specified by the user in the service profile; provides media conversion such as text to fax or fax to text; provides access to an X.500 directory to determine addressing schemes for packet data; supports signaling between wireless data networks for management functions such as registration; and maintains a service profile cache." See also, col. 10-11, ll. 55-13: "For example, when a wireline e-mail message arrives at the PCI server's Data Messaging Peripheral 112, the messaging gateway 140 and messaging Controller 136 send notification to the PCI application server 114 of the e-mail arrival. The PCI application server 114 will query the profile cache 51, or if necessary, the PCI database 44. Driven by data in the subscriber's profile, the PCI application server 114 executes service logic to determine where to forward the e-mail (i.e., forward to PDA 30 or to POP server 190 depending on screening outcome), and what media, if any, to use to send notification of the e-mail arrival. For another example, when a CallCommand call arrives at the PCI server 48, the procedure is as follows. The switch controller 152 and transaction controller 150 forward the call to the IP Functions Server 130 based on the dialed number. The IP functions 130 sends a provide.sub.-- instructions 1129+ message to the PCI database 44 to determine how to handle the call. The PCI database 44 and IP functions applications servers 130 begin a conversation of messages which perform a sequence of functions which play an announcement to the caller, send notification to the PDA, etc. When a response arrives from the PDA 30, the IP functions server 130 forwards

	the response to the PCI database 44. The PCI database 44 will then direct IP functions server 130 to forward the call to a routing number and/or play a synthesized message to the caller." See also, col. 6, ll. 11-19: "For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager, and notification that a fax has been received may be rerouted to the wireline e-mail." See also, col. 3 ll. 10-17: "The user may need to send or receive messages from any or all of the messaging options described above at a visiting location. That is, the user may want to receive or receive notification of e-mail, faxes, phone calls, or voice mail at a visiting location or to send e-mail or faxes from a wireless terminal. The need to integrate these various types of messaging options and to interconnect the many service providers has, until now, been largely unaddressed." See also, col. 4 li. 57 - col. 5 li. 5: "A. E-Mail Messaging E-Mail messaging in the PCl is illustrated in FIG. 21. The PCI network provides the subscriber with a variety of e-mail delivery, receipt. and notification options, including screening and selective destination delivery of incoming e-mail. B. Voice Messaging Voice messaging in the PCl is illustrated in FIG. 22. The PCl provides the subscriber

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	with a variety of voice mail delivery, receipt, and notification options, including screening and selective destination delivery of incoming voice mail. C. Facsimile Messaging Facsimile messaging in the PCI is illustrated in FIG. 23. The PCI provides the subscriber with a variety of facsimile delivery, receipt, and notification options. including screening and selective destination delivery of incoming faxes."
5. The system for automatically notifying a user of an awaiting message of claim 1, wherein the mail notification means collects the awaiting message and gives the registered user the option of listening to the awaiting message.	U.S. 5742905 discloses a system for automatically notifying a user of an awaiting message of claim 1, wherein the mail notification means collects the awaiting message and gives the registered user the option of listening to the awaiting message. See e.g., col. 5 ll. 54-67: "A Personal Communications Internetworking network ("PCI") 40 according to the present invention is connected between the wireless 39 and wireline networks 29. The PCI 40 permits the mobile communications subscriber to send and receive messages between disparate networks and messaging systems and a variety of service providers. The mobile communications subscriber can receive e-mail, fax, pages, and voice messages under a single phone number while using either a wireless or wireline network. The subscriber may also select the media format and serving network used to receive messages. The subscriber may also select cross-media notification of incoming messages. (i.e. the subscriber may receive notification from a pager message that a voice mail message was received)." See also col. 23 ll. 23-33: "The PCI uses personal communications service-integration capabilities to integrate the wireless service capabilities available to the subscriber. This is accomplished by providing the subscriber with control over the message routing and delivery by the subscriber accessible "subscriber profile" stored in the PO. The subscriber profile contains subscriber programmed instructions on message receipt. origination. and

	notification. Thus, PCI operates as a messaging gateway for providing access to multiple wireline and wireless networks, while using subscriber profile information to control sending and receiving options." See also col. 6, ll. 1-20; see also Figs. 1-4: "The subscriber selects the wireline or wireless network and media format to be used for delivering messages or notification of message receipt. The PCI 40 will perform a media conversion to allow, for instance, an e-mail message to be delivered to a fax server. The PCI 40 may also include accessibility controls which allow the user to screen messages by selected criteria such as media type (e.g., e-mail, fax, etc.), message length (e.g., voice mail messages less than three minutes), or sender (e.g., only messages from the office and a certain client are to be forwarded). For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager, and notification that a fax has been received may be rerouted to the wireline e-mail. See e.g. col. 7 ll. 39-59., "The PCI server 48 is also connected to various wireless and wireline networks 49 via signaling connections in these networks to transmit and receive information for all of the messaging options. Illustratively, the PCI server provides access to Public Packet Switched Networks (PPSN), Public Switched Telephone Network, (PSTN), Integrated Signaling Digital Networks (ISDN), X.25 networks and TCP/IP networks and may include access to asynchronous transfer mode (ATM), Switched Multimegabit Digital Service (SMDS), and Frame Relay networks.

	The mobile subscriber may access his or her subscriber profile to change message sending, message receiving, and service control options. These option changes are sent to the PCI database 44 to be stored in the subscriber profile. FIG. 4 shows, for example, a PDA 30 connected to the PCI server 48 by a wireless network 54, but the subscriber may also use wireline e-mail, or wireless or wireline telephones (using DTMF signals) to access the subscriber profile. The messages from the PDA, for example, are sent by a wireless network 54 to the PCI server 48 using, for example, an X.25 transport." See also, col. 7, ll. 39-48: "The PCI server 48 is also connected to various wireless and wireline networks 49 via signaling connections in these networks to transmit and receive information for all of the messaging options. Illustratively, the PCI server provides access to Public Packet Switched Networks (PPSN), Public Switched Telephone Network, (PSTN), Integrated Signaling Digital Networks (ISDN), X.25 networks and TCP/IP networks and may include access to asynchronous transfer mode (ATM), Switched Multimegabit Digital Service (SMDS), and Frame Relay networks." See also, col. 8, ll. 31-53: II. The PCI Server "The PCI server 48 is a peripheral which performs messaging and call redirection functions and interfaces with the PCI Database to update the subscriber profile. The PCI server performs a variety of functions. For example, an illustrative PCI server: is an X.400 Gateway; routes messages using the X.400 messaging protocol;

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	connects proprietary messaging protocols into X.400 protocol; interfaces with wireless data networks; interfaces with messaging systems; interfaces with the PCI database to access subscriber profiles information; processes messages as specified by the user in the service profile; provides media conversion such as text to fax or fax to text; provides access to an X.500 directory to determine addressing schemes for packet data; supports signaling between wireless data networks for management functions such as registration; and maintains a service profile cache." See also, col. 10-11, ll. 55-13: "For example, when a wireline e-mail message arrives at the PCI server's Data Messaging Peripheral 112, the messaging gateway 140 and messaging Controller 136 send notification to the PCI application server 114 of the e-mail arrival. The PCI application server 114 will query the profile cache 51, or if necessary, the PCI database 44. Driven by data in the subscriber's profile, the PCI application server 114 executes service logic to determine where to forward the e-mail (i.e., forward to PDA 30 or to POP server 190 depending on screening outcome), and what media, if any, to use to send notification of the e-mail arrival. For another example, when a CallCommand call arrives at the PCI server 48, the

	procedure is as follows. The switch controller 152 and transaction controller 150 forward the call to the IP Functions Server 130 based on the dialed number. The IP functions 130 sends a provide.sub.-- instructions 1129+ message to the PCI database 44 to determine how to handle the call. The PCI database 44 and IP functions applications servers 130 begin a conversation of messages which perform a sequence of functions which play an announcement to the caller, send notification to the PDA, etc. When a response arrives from the PDA 30, the IP functions server 130 forwards the response to the PCI database 44. The PCI database 44 will then direct IP functions server 130 to forward the call to a routing number and/or play a synthesized message to the caller." See also, col. 6, ll. 11-19: "For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager, and notification that a fax has been received may be rerouted to the wireline e-mail." See also, col. 3 ll. 10-17: "The user may need to send or receive messages from any or all of the messaging options described above at a visiting location. That is, the user may want to receive or receive notification of e-mail, faxes, phone calls, or voice mail at a visiting location or to send e-mail or faxes from a wireless terminal. The need to integrate these various types of messaging options and to interconnect the many service providers has, until now, been largely unaddressed." See also, col. 4 li. 57 - col. 5 li. 5:

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	"A. E-Mail Messaging E-Mail messaging in the PCl is illustrated in FIG. 21. The PCI network provides the subscriber with a variety of e-mail delivery, receipt. and notification options, including screening and selective destination delivery of incoming e-mail. B. Voice Messaging Voice messaging in the PCl is illustrated in FIG. 22. The PCl provides the subscriber with a variety of voice mail delivery, receipt, and notification options, including screening and selective destination delivery of incoming voice mail. C. Facsimile Messaging Facsimile messaging in the PCI is illustrated in FIG. 23. The PCI provides the subscriber with a variety of facsimile delivery, receipt, and notification options. including screening and selective destination delivery of incoming faxes."
6. The system for automatically notifying a user of an awaiting message of claim 5, wherein the identification means identifies a registration number, and wherein both the registration number and a password are needed for listening to the awaiting message.	U.S. 5742905 discloses a system for automatically notifying a user of an awaiting message of claim 5, wherein the identification means identifies a registration number, and wherein both the registration number and a password are needed for listening to the awaiting message See e.g. col. 7 ll. 5-16: "The profiles contain service related information for mapping services to subscribers (e.g. screening. routing. terminal selection by subscriber selected parameters. custom calling features. and the like); subscriber authentication data (e.g.. password and user I.D.); user status (registered or not registered); generic service profile for non-call associated service. such as subscriber address or social security number; specific profile for a non-call service (based on subscriber selected parameters); wireless data providers identification (e.g. what cellular phone provider is used); and specific profile for call associated services (e.g. call forwarding). based on user selected parameters"
7. The system for automatically notifying a user of an	U.S. 5742905 discloses a system for automatically notifying a user of an awaiting

awaiting message of claim 1, wherein the registered user can interact with the system and disable the system.	message of claim 1, wherein the registered user can interact with the system and disable the system See e.g. col. 11 ll. 44-54: "X.400 MTA or an SMTP router and can convert between both protocols. The PCI server 48 may receive text messages from a variety of different text messaging systems such as Internet mail, third party messaging systems, or proprietary messaging systems. In the example where PCI routes messages using an X.400 MrA, these messages must be converted to conform with XAOO protocol before they can be routed. Thus, an exemplary messaging gateway is an X.400 gateway. which can be designed and built by a person of ordinary skill in the art." See also col. 27 ll. 14-46: "FIG. 22 shows an illustrative embodiment of a PCI service for voice mail system. The voice mail systems 430 may use the public telephone network 432 and Audio Messaging Interface Specification (AMIS)-Analog Protocol to connect analog voice messages to the PCI. Alternatively. the voice mail system may use a modem 434, a private line 436. or an ISDN BRIAMIS-Digital Protocol 438 to connect digital voice mail signals to the PCI. Voice messaging systems on the PCI must be able to send a message to the PCI server 48 providing notification that the subscriber has received a voice message. The voice mail system may send this text message by using. for example, asynchronous interfaces with a modem; X.25; ISDN BRI. or TCPIIP interfaces. Preferably. the PCI server 48 supports the AMIS Analog and Digital interfaces. The PCI voice messaging call flow is as follows. Using the AMIS-Analog Protocol the system originating the voice message sends message information to the PCI server 48

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	specifying the type of message to be delivered. the message length (in minutes). the originator's mailbox number, and the recipient's mailbox number. When the message arrives at the PCI server 48. the originator's mailbox is extracted from AMIS-Analog Protocol and is compared to the subscriber's voice mailbox number stored in the subscriber profile. If the two values match. the voice message is already in the mailbox designated by the subscriber. In this case. the PCI server 48 sends a bogus error code to the originating voice messaging system using the AMIS-Analog protocol so that the voice message is rejected and is not forwarded to the PCI server 48. The PCI server 48. however. has header information needed to send a notification message to the subscriber. if such notification is required by the subscriber profile." See also col. 3 ll. 10-29: "The user may need to send or receive messages from any or all of the messaging options described above at a visiting location. That is, the user may want to receive or receive notification of e-mail, faxes, phone calls, or voice mail at a visiting location or to send e-mail or faxes from a wireless terminal. The need to integrate these various types of messaging options and to interconnect the many service providers has, until now, been largely unaddressed. It is also desirable for the mobile employee to be able to limit the messages sent to the wireless messaging equipment, so that only urgent messages are received when away from the office and unwanted in-coming calls are avoided. The mobile employee may also wish to route certain incoming wireless messages and phone calls to other destinations, such as an office fax machine or a colleague's telephone. Therefore, it is an object of the present invention to provide a mobile service subscriber the ability to control and integrate a plurality of messaging options."
8. The system for automatically notifying a user of an	U.S. 5742905 discloses a system for automatically notifying a user of an awaiting

awaiting message of claim 1, wherein a telephone call is placed to the registered user, the telephone call notifying the registered user of the awaiting message.	message of claim 1, wherein a telephone call is placed to the registered user, the telephone call notifying the registered user of the awaiting message. See e.g. col. 2 ll. 7-15 and col. 3 ll. 10-26: "The interoperability problem for location tracking has been addressed by adopting signaling protocols used by the mobile phone industry. Location tracking functions are implemented using two location registers. One of the registers. maintained by the local telephone company of the user's home location, is called the Home Location Register (HLR). The other register. maintained by the local telephone company of the visiting location. is called the Visiting Location Register (VLR)." ... "The user may need to send or receive messages from any or all of the messaging options described above at a visiting location. That is, the user may want to receive or receive notification of e-mail, faxes, phone calls, or voice mail at a visiting location or to send e-mail or faxes from a wireless terminal. The need to integrate these various types of messaging options and to interconnect the many service providers has, until now, been largely unaddressed. It is also desirable for the mobile employee to be able to limit the messages sent to the wireless messaging equipment, so that only urgent messages are received when away from the office and unwanted in-coming calls are avoided. The mobile employee may also wish to route certain incoming wireless messages and phone calls to other destinations, such as an office fax machine or a colleague's telephone." See also col. 6, ll. 1-20; see also Figs. 1-4: "The subscriber selects the wireline or wireless network and media format to be used for delivering messages or notification of message receipt. The PCI 40 will perform a

	media conversion to allow, for instance, an e-mail message to be delivered to a fax server. The PCI 40 may also include accessibility controls which allow the user to screen messages by selected criteria such as media type (e.g., e-mail, fax, etc.), message length (e.g., voice mail messages less than three minutes), or sender (e.g., only messages from the office and a certain client are to be forwarded). For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager, and notification that a fax has been received may be rerouted to the wireline e-mail. See also, col. 10-11, ll. 55-13: "For example, when a wireline e-mail message arrives at the PCI server's Data Messaging Peripheral 112, the messaging gateway 140 and messaging Controller 136 send notification to the PCI application server 114 of the e-mail arrival. The PCI application server 114 will query the profile cache 51, or if necessary, the PCI database 44. Driven by data in the subscriber's profile, the PCI application server 114 executes service logic to determine where to forward the e-mail (i.e., forward to PDA 30 or to POP server 190 depending on screening outcome), and what media, if any, to use to send notification of the e-mail arrival. For another example, when a CallCommand call arrives at the PCI server 48, the procedure is as follows. The switch controller 152 and transaction controller 150 forward the call to the IP Functions Server 130 based on the dialed number. The IP functions 130 sends a provide.sub.-- instructions 1129+ message to the PCI database 44 to determine how to handle the call. The PCI database 44 and IP functions applications servers 130 begin a conversation of messages which perform a sequence

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	of functions which play an announcement to the caller, send notification to the PDA, etc. When a response arrives from the PDA 30, the IP functions server 130 forwards the response to the PCI database 44. The PCI database 44 will then direct IP functions server 130 to forward the call to a routing number and/or play a synthesized message to the caller." See also, col. 6, ll. 11-19: "For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager, and
9. A method for automatically notifying a user of an awaiting message, comprising the steps of:	U.S. 5742905 discloses a method for automatically notifying a user of an awaiting message. See e.g., col. 6, ll. 11-19: "For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager, and notification that a fax has been received may be rerouted to the wireline e-mail." See e.g., col. 3 ll. 10-17:

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	"The user may need to send or receive messages from any or all of the messaging options described above at a visiting location. That is, the user may want to receive or receive notification of e-mail, faxes, phone calls, or voice mail at a visiting location or to send e-mail or faxes from a wireless terminal. The need to integrate these various types of messaging options and to interconnect the many service providers has, until now, been largely unaddressed." See e.g., col. 17 ll. 23-27: "The PCI server 48 server receives the registration request and checks if the subscriber is provisioned and if the subscriber ID and password are correct. The PCI server then sends a registration acknowledgement (line 302)."
a) recognizing a cellular telephone, the recognizing using a registration number of the cellular telephone, the registration number identifying a user;	U.S. 5742905 discloses recognizing a cellular telephone, the recognizing using a registration number of the cellular telephone, the registration number identifying a user. The system and method are intended to work with a user's cellular telephone which must register with the PCI server, using a registration number. See e.g., col. 5, ll. 28-67: "FIG. 1 is a simplified overview of a personal communications internetworking ("PCI") according to the present invention. A consumer, an office for example, has various messaging equipment, such as a voice mail system 20, an e-mail terminal 22, fax machines 24, and telephones 26. These are all connected to wireline networks 29. For example, the fax 24, phone 26, and voicemail system 20 may be connected to a Public Switched Telephone Network (PSTN), part of which belongs to a particular local phone service company, and part of which belongs to a particular long distance service provider. The e-mail terminal 22 may be connected to a data packet network, such as Internet, whose packets are carried over phone lines.

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	A mobile communications subscriber (for example an employee who works at the office described above and travels frequently) has various portable messaging equipment, such as a PDA 30, a cellular phone 32, and a pager 34. These are connected to wireless networks 39. These wireless messaging options may be provided by different service providers. That is, the cellular phone may be connected to a wireless network of a cellular phone service provider, the pager may be connected to a different wireless network maintained by a pager service provider, and the PDA may be connected to a third wireless communications network maintained by yet another service provider." "A Personal Communications Internetworking network ("PCI") 40 according to the present invention is connected between the wireless 39 and wireline networks 29. The PCI 40 permits the mobile communications subscriber to send and receive messages between disparate networks and messaging systems and a variety of service providers. The mobile communications subscriber can receive e-mail, fax, pages, and voice messages under a single phone number while using either a wireless or wireline network. The subscriber may also select the media format and serving network used to receive messages. The subscriber may also select cross-media notification of incoming messages, (i.e., the subscriber may receive notification from a pager message that a voice mail message was received)." See e.g., col. 6, ll. 34-51: "The PCI database 44 supports access to information authenticating the subscriber's identity and validating the types of services subscribed to, the subscriber's message delivery (incoming messages) options and origination (outgoing messages) options and voice (telephone call and voice mail) options. For origination, the subscriber may select message distribution lists with specific media delivery options. The database 44 also supports access to the portions of the subscriber profile that the subscriber may control.

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	The subscriber may use a personal telephone number to register at alternate wireline and wireless terminals while maintaining use of the message screening and delivery options selected and stored in a subscriber's profile. This is called "personal mobility". Information about the location of a wireless or wireline network location to which the subscriber's terminal is connected automatically registers and deregisters a subscriber's terminal. This is called 'terminal mobility.'" See e.g., col. 7 ll. 4-16: "The PCI database 44 preferably stores and updates the subscriber profiles. The profiles contain service related information for mapping services to subscribers (e.g.. screening. routing. terminal selection by subscriber selected parameters. custom calling features. and the like); subscriber authentication data (e.g.. password and user I.D.); user status (registered or not registered); generic service profile for non-call associated service. such as subscriber address or social security number; specific profile for a non-call service (based on subscriber selected parameters); wireless data providers identification (e.g. what cellular phone provider is used); and specific profile for call associated services (e.g. call forwarding). based on user selected parameters." See e.g., col. 2 li 7 - col. 3 li 9: "The interoperability problem for location tracking has been addressed by adopting signaling protocols used by the mobile phone industry. Location tracking functions are implemented using two location registers. One of the registers. maintained by the local telephone company of the user's home location, is called the Home Location Register (HLR). The other register. maintained by the local telephone company of the visiting location. is called the Visiting Location Register (VLR). The HLR stores customer profile data and the location of the VLR of the user. The customer profile data contains important information such as the user's name, address. preferred long distance carrier. service features (e.g.. call forwarding and call restriction). billing. and other administrative related information. When the user travels to a new visiting

	location. a new VLR is created in the new location. Apart of the profile data stored in the HLR is transmitted and loaded into the VLR such that the service provider at the visiting location can implement service features for the visiting user. When the user travels to a new visiting location the location of the VLR stored in the HLR is changed to the new VLR location. and the VLR in the previously visited location is deleted. The process of creating a new VLR. loading profile data to the VLR. and updating the visiting location of a user in the HLR is called 'automatic roamer registration'. The interoperability problem for service management is much more complex than that for location tracking. Service management refers to a collection of functions required to enable a personal communication service user to subscribe to, modify, and activate service features anywhere and at any time. Examples of service management functions include phone number administration. customer profile data management. service activation. and security administration. The phone number administration function is important for maintaining the uniqueness of phone numbers. The customer profile data management function provides customer profile databases and user interfaces for creating. modifying, or transferring such databases. The service activation function extracts part of the data specifying service features from the profile data and loads this data into physical communication systems that process calls. The service activation function also controls the activation and deactivation of the service features. The security administration function prevents or detects unauthorized uses of services and service management functions. Service management functions of this type are needed to provide personal communication services involving multiple service providers. Such service management functions generally require interactions between application software and various databases owned and operated by the different service providers. Consider an application which enables a nomadic user to subscribe to a personal communication service from any service provider at any location. An example of such a service is call forwarding to a temporarily rented portable phone. The application may, for example, need to perform the following database access operations at databases maintained by

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	various different service providers: check credit databases owned by credit card companies or phone companies to determine whether the user is able to pay for the service; check the customer profile database in the user's HLR to determine whether the user is currently located in a place other than the visiting location currently stored in the HLR; check the credit and network databases of long distance phone companies specified by the user to determine whether the user can use a particular long distance carrier in the visiting location; load profile data into the VLR at the visiting location and update the HLR with the location of the VLR if necessary; and load the profile data to the call processing systems and activate the service."
b) checking for mailboxes associated with the user;	U.S. 5742905 discloses checking for mailboxes associated with the user. See e.g., col. 7, ll. 39-48: "The PCI server 48 is also connected to various wireless and wireline networks 49 via signaling connections in these networks to transmit and receive information for all of the messaging options. Illustratively, the PCI server provides access to Public Packet Switched Networks (PPSN), Public Switched Telephone Network, (PSTN), Integrated Signaling Digital Networks (ISDN), X.25 networks and TCP/IP networks and may include access to asynchronous transfer mode (ATM), Switched Multimegabit Digital Service (SMDS), and Frame Relay networks." See e.g., col. 8, ll. 31-53:

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	II. The PCI Server "The PCI server 48 is a peripheral which performs messaging and call redirection functions and interfaces with the PCI Database to update the subscriber profile. The PCI server performs a variety of functions. For example, an illustrative PCI server: is an X.400 Gateway; routes messages using the X.400 messaging protocol; connects proprietary messaging protocols into X.400 protocol; interfaces with wireless data networks; interfaces with messaging systems; interfaces with the PCI database to access subscriber profiles information; processes messages as specified by the user in the service profile; provides media conversion such as text to fax or fax to text; provides access to an X.500 directory to determine addressing schemes for packet data; supports signaling between wireless data networks for management functions such as registration; and maintains a service profile cache." See e.g., col. 10-11, ll. 55-13:

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	"For example, when a wireline e-mail message arrives at the PCI server's Data Messaging Peripheral 112, the messaging gateway 140 and messaging Controller 136 send notification to the PCI application server 114 of the e-mail arrival. The PCI application server 114 will query the profile cache 51, or if necessary, the PCI database 44. Driven by data in the subscriber's profile, the PCI application server 114 executes service logic to determine where to forward the e-mail (i.e., forward to PDA 30 or to POP server 190 depending on screening outcome), and what media, if any, to use to send notification of the e-mail arrival. For another example, when a CallCommand call arrives at the PCI server 48, the procedure is as follows. The switch controller 152 and transaction controller 150 forward the call to the IP Functions Server 130 based on the dialed number. The IP functions 130 sends a provide.sub.-- instructions 1129+ message to the PCI database 44 to determine how to handle the call. The PCI database 44 and IP functions applications servers 130 begin a conversation of messages which perform a sequence of functions which play an announcement to the caller, send notification to the PDA, etc. When a response arrives from the PDA 30, the IP functions server 130 forwards the response to the PCI database 44. The PCI database 44 will then direct IP functions server 130 to forward the call to a routing number and/or play a synthesized message to the caller."
c) checking for awaiting messages in the mailboxes if the mailboxes exist, wherein the mailboxes are located in multiple messaging systems; and	U.S. 5742905 discloses checking for awaiting messages in the mailboxes if the mailboxes exist, wherein the mailboxes are located in multiple messaging systems. See e.g., col. 5 ll. 54-67: "A Personal Communications Internetworking network ("PCI") 40 according to the present invention is connected between the wireless 39 and wireline networks 29. The PCI 40 permits the mobile communications subscriber to send and receive messages between disparate networks and messaging systems and a variety of service providers.

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	The mobile communications subscriber can receive e-mail, fax, pages, and voice messages under a single phone number while using either a wireless or wireline network. The subscriber may also select the media format and serving network used to receive messages. The subscriber may also select cross-media notification of incoming messages. (i.e. the subscriber may receive notification from a pager message that a voice mail message was received)." See also col. 6, ll. 1-20; see also Figs. 1-4: "The subscriber selects the wireline or wireless network and media format to be used for delivering messages or notification of message receipt. The PCI 40 will perform a media conversion to allow, for instance, an e-mail message to be delivered to a fax server. The PCI 40 may also include accessibility controls which allow the user to screen messages by selected criteria such as media type (e.g., e-mail, fax, etc.), message length (e.g., voice mail messages less than three minutes), or sender (e.g., only messages from the office and a certain client are to be forwarded). For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager, and notification that a fax has been received may be rerouted to the wireline e-mail. See e.g. col. 7 ll. 39-59., "The PCI server 48 is also connected to various wireless and wireline networks 49 via signaling connections in these networks to transmit and receive information for all of the messaging options. Illustratively, the PCI server provides access to Public Packet Switched Networks (PPSN), Public Switched Telephone Network, (PSTN), Integrated

	Signaling Digital Networks (ISDN), X.25 networks and TCP/IP networks and may include access to asynchronous transfer mode (ATM), Switched Multimegabit Digital Service (SMDS), and Frame Relay networks. The mobile subscriber may access his or her subscriber profile to change message sending, message receiving, and service control options. These option changes are sent to the PCI database 44 to be stored in the subscriber profile. FIG. 4 shows, for example, a PDA 30 connected to the PCI server 48 by a wireless network 54, but the subscriber may also use wireline e-mail, or wireless or wireline telephones (using DTMF signals) to access the subscriber profile. The messages from the PDA, for example, are sent by a wireless network 54 to the PCI server 48 using, for example, an X.25 transport." See also col. 5 ll. 41-53: "A mobile communications subscriber (for example an employee who works at the office described above and travels frequently) has various portable messaging equipment. such as a PDA 30. a cellular phone 32. and a pager 34. These are connected to wireless networks 39. These wireless messaging options may be provided by different service providers. That is. the cellular phone may be connected to a wireless network of a cellular phone service provider. the pager may be connected to a different wireless network maintained by a pager service provider, and the PDA may be connected to a third wireless communications network maintained by yet another service provider."
d) contacting the user with information related to the awaiting message if the awaiting message is present.	U.S. 5742905 discloses contacting the user with information related to the awaiting message if the awaiting message is present. See e.g., col. 6, ll. 11-19:

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	"For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager, and notification that a fax has been received may be rerouted to the wireline e-mail." See e.g., col. 3 ll. 10-17: "The user may need to send or receive messages from any or all of the messaging options described above at a visiting location. That is, the user may want to receive or receive notification of e-mail, faxes, phone calls, or voice mail at a visiting location or to send e-mail or faxes from a wireless terminal. The need to integrate these various types of messaging options and to interconnect the many service providers has, until now, been largely unaddressed." See also, col. 4 li. 57 - col. 5 li. 5: "A. E-Mail Messaging E-Mail messaging in the PCl is illustrated in FIG. 21. The PCI network provides the subscriber with a variety of e-mail delivery, receipt. and notification options, including screening and selective destination delivery of incoming e-mail. B. Voice Messaging Voice messaging in the PCl is illustrated in FIG. 22. The PCl provides the subscriber with a variety of voice mail delivery, receipt, and notification options, including screening and selective destination delivery of incoming voice mail. C. Facsimile Messaging Facsimile messaging in the PCI is illustrated in FIG. 23. The PCI provides the subscriber with a variety of facsimile delivery, receipt, and notification options. including screening and selective destination delivery of incoming faxes."

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	See also, col. 6 ll. 1-5: "The subscriber selects the wireline or wireless network and media format to be used for delivering messages or notification of message receipt. The PCI 40 will perform a media conversion to allow. for instance. an e-mail message to be delivered to a fax server."
10. The method for automatically notifying a user of an awaiting message of claim 9, further comprising the step of collecting the awaiting message if the awaiting message is present.	U.S. 5742905 discloses the method for automatically notifying a user of an awaiting message of claim 9, further comprising the step of collecting the awaiting message if the awaiting message is present. See e.g., col. 27-28, ll. 59-14: "When the voice message arrives at the PCI server 48, the PCI server 48 attempts to route the voice message according to the screening, registration, and routing options contained in the subscriber profile. Using AMIS-Analog Protocol, the PCI server 48 sends message information to the subscriber's destination voice messaging system, specifying the type of message to be delivered, length of the message in minutes, the originator's mailbox number, and the recipient's mailbox number. For voice messages that cannot be delivered to the destination, for example if the mailbox is full, the destination system sends a non-delivery notification message to the PCI server 48 specifying the reason why the message is undeliverable. The PCI server 48 retries delivering for up to a system defined time period. If all of the retries fail, the PCI server 48 uses the AMIS-Analog Protocol to return the voice message to the originating voice messaging system with an appropriate non-delivery notification. A pre-recorded non-delivery announcement is sent to notify the message originator that the message was undeliverable. No further processing occurs. If the destination system accepts the message, the PCI server 48 forwards the voice message to the destination

	system." See e.g., col. 28, ll. 54-67: "FIG. 23 illustrates a PCI service for fax messaging. The PCI server 48 is connected to public switched telephone networks 432 via analog lines 444 or a T1 trunk 445. Fax machines 440 and fax servers 442 are connected to the PSTN 432. The PCI server 48 may also be connected to fax machines 440 and fax servers 442 by private lines 446 or an ISDN 438. For a subscriber to receive faxes, the fax machine telephone number must be supplied to the subscriber profile. The PCI will send a fax to the designated number and may send a text notification message or take other action as the user has selected in the profile. If the user has specified a wireless data terminal to receive the fax, the PCI server 48 will perform the necessary wireless adaptation and send a fax through a wireless data terminal." See also col. 23 ll. 23-33: "The PCI uses personal communications service-integration capabilities to integrate the wireless service capabilities available to the subscriber. This is accomplished by providing the subscriber with control over the message routing and delivery by the subscriber accessible "subscriber profile" stored in the PO. The subscriber profile contains subscriber programmed instructions on message receipt. origination. and notification. Thus, PCI operates as a messaging gateway for providing access to multiple wireline and wireless networks, while using subscriber profile information to control sending and receiving options." See e.g., col. 10, ll. 55-65: "For example, when a wireline e-mail message arrives at the PCI server's Data Messaging Peripheral 112, the messaging gateway 140 and messaging Controller 136 send notification to the PCI application server 114 of the e-mail arrival. The PCI

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	application server 114 will query the profile cache 51, or if necessary, the PCI database 44. Driven by data in the subscriber's profile, the PCI application server 114 executes service logic to determine where to forward the e-mail (i.e., forward to PDA 30 or to POP server 190 depending on screening outcome), and what media, if any, to use to send notification of the e-mail arrival."
11. The method for automatically notifying a user of an awaiting message of claim 10, further comprising the step of playing the collected messages for the user.	U.S. 5742905 discloses a method for automatically notifying a user of an awaiting message of claim 10, further comprising the step of playing the collected messages for the user. For example, the PCI server can route the voice message to the user's cell phone for playback on the user's remote device. See e.g., col. 27-28, ll. 59-14: "When the voice message arrives at the PCI server 48, the PCI server 48 attempts to route the voice message according to the screening, registration, and routing options contained in the subscriber profile. Using AMIS-Analog Protocol, the PCI server 48 sends message information to the subscriber's destination voice messaging system, specifying the type of message to be delivered, length of the message in minutes, the originator's mailbox number, and the recipient's mailbox number. For voice messages that cannot be delivered to the destination, for example if the mailbox is full, the destination system sends a non-delivery notification message to the PCI server 48 specifying the reason why the message is undeliverable. The PCI server 48 retries delivering for up to a system defined time period. If all of the retries fail, the PCI server 48 uses the AMIS-Analog Protocol to return the voice message to the originating voice messaging system with an appropriate non-delivery notification. A pre-recorded non-delivery announcement is sent to notify the message originator that the message was undeliverable. No further processing occurs. If the destination system accepts the message, the PCI server 48 forwards the voice message to the destination system."
12. The method for automatically notifying a user of	U.S. 5742905 discloses a method for automatically notifying a user of an awaiting

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an awaiting message of claim 9, further comprising the step of repeating steps c) and d) periodically until the user is out-of-range.	message of claim 9, further comprising the step of repeating steps c) and d) periodically until the user is out-of-range. See e.g. col. 17, ll. 36-65: "FIG. 13 illustrates one example of the message flow between the PDA 30 and PCI server 48 during explicit registration. This flow is also used by a subscriber to check registration of CallCommand or wireless messaging services. A subscriber starts the PCI application software on the PDA or clicks the service status check, CallCommand registration, or wireless messaging registration buttons on the PDA. The PDA sends a registration request to the PCI server 48 with the subscriber's validation information (subscriber ID and password) (line 300). The PDA 30 also starts a timer during which the PDA 30 will wait for a response from the PCI server 48. The PCI server 48 server receives the registration request and checks if the subscriber is provisioned and if the subscriber ID and password are correct. The PCI server then sends a registration acknowledgement (line 302). If the subscriber is not provisioned, no service profile exists and the acknowledgement includes an "unrecognized subscriber" response. If the subscriber ID and password are invalid, the acknowledgement includes an "incorrect password/PIN" response. Otherwise, the PCI server acknowledgement includes a "success" response. If the PDA 30 does not receive an acknowledgement from the PCI server within a predetermined time, it aborts the registration attempt and tells the subscriber to try again later. Implicit registration automatically registers a subscriber for the wireless messaging service when the subscriber is currently not registered and wishes to send or fetch E-Mail from or to a PDA 30. Implicit registration is done as follows. The PCI server receives a fetch or send request from a subscriber who is not registered for the wireless messaging service. The PCI server 48 retrieves a copy of the subscriber's service profile from the PCI database 44, if necessary, and validates the subscriber's ID and password. The PCI server 48 validates the profile contents to make sure that subscriber may use the wireless messaging service. If wireless messaging is permitted,

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	the PCI server 48 processes the request. Otherwise, it sends an acknowledgement indicating the reason why the subscriber is not permitted to use the wireless messaging service. The message flow is the same as illustrated in FIG. 13." See also, col. 18, ll. 29-45: "Implicit deregistration occurs when the PCI does not detect any wireless messaging activity from or to the subscriber for a given duration of time, for example four hours. The PCI will also try to implicitly deregister a subscriber from the wireless messaging service in the middle of the night in the event that the subscriber inadvertently left the PDA 30 turned on. The PCI server 48 keeps a time-stamp of the most recent wireless messaging activity for each registered subscriber in the subscriber's service profile maintained in the service profile cache 51. Whenever the PCI server 48 detects any wireless messaging activities to or from a particular subscriber, the time-stamp is updated to the current time. The stored time-stamp of a registered subscriber is periodically compared to the current time. When a predetermined time elapses, the PCI server 48 assumes that the subscriber is out of radio coverage or has quit the PCI application."
13. The method for automatically notifying a user of an awaiting message of claim 9, wherein a mailbox registration table is used when checking for the mailboxes.	U.S. 5742905 discloses a method for automatically notifying a user of an awaiting message of claim 9, wherein a mailbox registration table is used when checking for the mailboxes. For example, the PCI server has a database (registration table) of mailboxes, such as email mailboxes, registered with the user. See e.g. col. 17, ll. 36-65: "FIG. 13 illustrates one example of the message flow between the PDA 30 and PCI server 48 during explicit registration. This flow is also used by a subscriber to check registration of CallCommand or wireless messaging services. A subscriber starts the PCI application software on the PDA or clicks the service status check, CallCommand registration, or wireless messaging registration buttons on the PDA. The PDA sends a registration request to the PCI server 48 with the subscriber's validation information

	(subscriber ID and password) (line 300). The PDA 30 also starts a timer during which the PDA 30 will wait for a response from the PCI server 48. The PCI server 48 server receives the registration request and checks if the subscriber is provisioned and if the subscriber ID and password are correct. The PCI server then sends a registration acknowledgement (line 302). If the subscriber is not provisioned, no service profile exists and the acknowledgement includes an "unrecognized subscriber" response. If the subscriber ID and password are invalid, the acknowledgement includes an "incorrect password/PIN" response. Otherwise, the PCI server acknowledgement includes a "success" response. If the PDA 30 does not receive an acknowledgement from the PCI server within a predetermined time, it aborts the registration attempt and tells the subscriber to try again later. Implicit registration automatically registers a subscriber for the wireless messaging service when the subscriber is currently not registered and wishes to send or fetch E-Mail from or to a PDA 30. Implicit registration is done as follows. The PCI server receives a fetch or send request from a subscriber who is not registered for the wireless messaging service. The PCI server 48 retrieves a copy of the subscriber's service profile from the PCI database 44, if necessary, and validates the subscriber's ID and password. The PCI server 48 validates the profile contents to make sure that subscriber may use the wireless messaging service. If wireless messaging is permitted, the PCI server 48 processes the request. Otherwise, it sends an acknowledgement indicating the reason why the subscriber is not permitted to use the wireless messaging service. The message flow is the same as illustrated in FIG. 13." See e.g., col. 8, ll. 1-29: "Data storage functions are handled by two tiered entities. The subscriber profile is preferably located in the PCI database 44 and is the top of the hierarchy where permanent records such as service profile, authentication and validation information, and the like of the subscriber or device are maintained and performing status and location management and mapping are performed. A service profile cache 51 is

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	preferably located in the PCI server 48 and is a local cache entity which stores on a "needs basis" information such as service profiles and validation status and maintains a local repository for the service recipient. It also administers information necessary to serve the wireless data network entity, as well as sending updates to the permanent storage entity PCI database. The service profile cache 51 maintains the personal data associated with the processing of the mobility controller 49. The mobility controller 49 interacts with the PCI database-based subscriber profile (or third party data base) on behalf of the cache to obtain service profiles and location information related to wireless terminals."
14. The method for automatically notifying a user of an awaiting message of claim 9, further comprising the step of connecting the user to the mailbox with the awaiting message.	U.S. 5742905 discloses a method for automatically notifying a user of an awaiting message of claim 9, further comprising the step of connecting the user to the mailbox with the awaiting message. See e.g., col. 5 ll. 54-67: "A Personal Communications Internetworking network ("PCI") 40 according to the present invention is connected between the wireless 39 and wireline networks 29. The PCI 40 permits the mobile communications subscriber to send and receive messages between disparate networks and messaging systems and a variety of service providers. The mobile communications subscriber can receive e-mail, fax, pages, and voice messages under a single phone number while using either a wireless or wireline network. The subscriber may also select the media format and serving network used to receive messages. The subscriber may also select cross-media notification of incoming messages. (i.e. the subscriber may receive notification from a pager message that a voice mail message was received)." See also col. 23 ll. 23-33: "The PCI uses personal communications service-integration capabilities to integrate the wireless service capabilities available to the subscriber. This is accomplished by

	providing the subscriber with control over the message routing and delivery by the subscriber accessible "subscriber profile" stored in the PO. The subscriber profile contains subscriber programmed instructions on message receipt. origination. and notification. Thus, PCI operates as a messaging gateway for providing access to multiple wireline and wireless networks, while using subscriber profile information to control sending and receiving options." See also col. 6, ll. 1-20; see also Figs. 1-4: "The subscriber selects the wireline or wireless network and media format to be used for delivering messages or notification of message receipt. The PCI 40 will perform a media conversion to allow, for instance, an e-mail message to be delivered to a fax server. The PCI 40 may also include accessibility controls which allow the user to screen messages by selected criteria such as media type (e.g., e-mail, fax, etc.), message length (e.g., voice mail messages less than three minutes), or sender (e.g., only messages from the office and a certain client are to be forwarded). For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager, and notification that a fax has been received may be rerouted to the wireline e-mail. See e.g. col. 7 ll. 39-59., "The PCI server 48 is also connected to various wireless and wireline networks 49 via signaling connections in these networks to transmit and receive information for all of the messaging options. Illustratively, the PCI server provides access to Public Packet Switched Networks (PPSN), Public Switched Telephone Network, (PSTN), Integrated

	Signaling Digital Networks (ISDN), X.25 networks and TCP/IP networks and may include access to asynchronous transfer mode (ATM), Switched Multimegabit Digital Service (SMDS), and Frame Relay networks. The mobile subscriber may access his or her subscriber profile to change message sending, message receiving, and service control options. These option changes are sent to the PCI database 44 to be stored in the subscriber profile. FIG. 4 shows, for example, a PDA 30 connected to the PCI server 48 by a wireless network 54, but the subscriber may also use wireline e-mail, or wireless or wireline telephones (using DTMF signals) to access the subscriber profile. The messages from the PDA, for example, are sent by a wireless network 54 to the PCI server 48 using, for example, an X.25 transport." See also, col. 7, ll. 39-48: "The PCI server 48 is also connected to various wireless and wireline networks 49 via signaling connections in these networks to transmit and receive information for all of the messaging options. Illustratively, the PCI server provides access to Public Packet Switched Networks (PPSN), Public Switched Telephone Network, (PSTN), Integrated Signaling Digital Networks (ISDN), X.25 networks and TCP/IP networks and may include access to asynchronous transfer mode (ATM), Switched Multimegabit Digital Service (SMDS), and Frame Relay networks." See also, col. 8, ll. 31-53: II. The PCI Server "The PCI server 48 is a peripheral which performs messaging and call redirection functions and interfaces with the PCI Database to update the subscriber profile. The PCI server performs a variety of functions. For example, an illustrative PCI server:

	is an X.400 Gateway; routes messages using the X.400 messaging protocol; connects proprietary messaging protocols into X.400 protocol; interfaces with wireless data networks; interfaces with messaging systems; interfaces with the PCI database to access subscriber profiles information; processes messages as specified by the user in the service profile; provides media conversion such as text to fax or fax to text; provides access to an X.500 directory to determine addressing schemes for packet data; supports signaling between wireless data networks for management functions such as registration; and maintains a service profile cache." See also, col. 10-11, ll. 55-13: "For example, when a wireline e-mail message arrives at the PCI server's Data Messaging Peripheral 112, the messaging gateway 140 and messaging Controller 136 send notification to the PCI application server 114 of the e-mail arrival. The PCI application server 114 will query the profile cache 51, or if necessary, the PCI database 44. Driven by data in the subscriber's profile, the PCI application server 114 executes service logic to determine where to forward the e-mail (i.e., forward to PDA 30 or to POP server 190 depending on screening outcome), and what media, if any, to

	use to send notification of the e-mail arrival. For another example, when a CallCommand call arrives at the PCI server 48, the procedure is as follows. The switch controller 152 and transaction controller 150 forward the call to the IP Functions Server 130 based on the dialed number. The IP functions 130 sends a provide.sub.-- instructions 1129+ message to the PCI database 44 to determine how to handle the call. The PCI database 44 and IP functions applications servers 130 begin a conversation of messages which perform a sequence of functions which play an announcement to the caller, send notification to the PDA, etc. When a response arrives from the PDA 30, the IP functions server 130 forwards the response to the PCI database 44. The PCI database 44 will then direct IP functions server 130 to forward the call to a routing number and/or play a synthesized message to the caller." See also, col. 6, ll. 11-19: "For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager, and notification that a fax has been received may be rerouted to the wireline e-mail." See also, col. 3 ll. 10-17: "The user may need to send or receive messages from any or all of the messaging options described above at a visiting location. That is, the user may want to receive or receive notification of e-mail, faxes, phone calls, or voice mail at a visiting location or to send e-mail or faxes from a wireless terminal. The need to integrate these various types of messaging options and to interconnect the many service providers has, until

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	now, been largely unaddressed." See also, col. 4 li. 57 - col. 5 li. 5: "A. E-Mail Messaging E-Mail messaging in the PCl is illustrated in FIG. 21. The PCI network provides the subscriber with a variety of e-mail delivery, receipt. and notification options, including screening and selective destination delivery of incoming e-mail. B. Voice Messaging Voice messaging in the PCl is illustrated in FIG. 22. The PCl provides the subscriber with a variety of voice mail delivery, receipt, and notification options, including screening and selective destination delivery of incoming voice mail. C. Facsimile Messaging Facsimile messaging in the PCI is illustrated in FIG. 23. The PCI provides the subscriber with a variety of facsimile delivery, receipt, and notification options. including screening and selective destination delivery of incoming faxes."
15. The method for automatically notifying a user of an awaiting message of claim 9, wherein the user is contacted by placing a telephone call to the cellular telephone.	U.S. 5742905 discloses a method for automatically notifying a user of an awaiting message of claim 9, wherein the user is contacted by placing a telephone call to the cellular telephone. See e.g. col. 2 ll. 7-15 and col. 3 ll. 10-26: "The interoperability problem for location tracking has been addressed by adopting signaling protocols used by the mobile phone industry. Location tracking functions are implemented using two location registers. One of the registers. maintained by the local telephone company of the user's home location, is called the Home Location Register (HLR). The other register. maintained by the local telephone company of the visiting location. is called the Visiting Location Register (VLR)." ...

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	"The user may need to send or receive messages from any or all of the messaging options described above at a visiting location. That is, the user may want to receive or receive notification of e-mail, faxes, phone calls, or voice mail at a visiting location or to send e-mail or faxes from a wireless terminal. The need to integrate these various types of messaging options and to interconnect the many service providers has, until now, been largely unaddressed. It is also desirable for the mobile employee to be able to limit the messages sent to the wireless messaging equipment, so that only urgent messages are received when away from the office and unwanted in-coming calls are avoided. The mobile employee may also wish to route certain incoming wireless messages and phone calls to other destinations, such as an office fax machine or a colleague's telephone." See also col. 6, ll. 1-20; see also Figs. 1-4: "The subscriber selects the wireline or wireless network and media format to be used for delivering messages or notification of message receipt. The PCI 40 will perform a media conversion to allow, for instance, an e-mail message to be delivered to a fax server. The PCI 40 may also include accessibility controls which allow the user to screen messages by selected criteria such as media type (e.g., e-mail, fax, etc.), message length (e.g., voice mail messages less than three minutes), or sender (e.g., only messages from the office and a certain client are to be forwarded). For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager, and notification that a fax has been received may be rerouted to the wireline e-mail.

	See also, col. 10-11, ll. 55-13: "For example, when a wireline e-mail message arrives at the PCI server's Data Messaging Peripheral 112, the messaging gateway 140 and messaging Controller 136 send notification to the PCI application server 114 of the e-mail arrival. The PCI application server 114 will query the profile cache 51, or if necessary, the PCI database 44. Driven by data in the subscriber's profile, the PCI application server 114 executes service logic to determine where to forward the e-mail (i.e., forward to PDA 30 or to POP server 190 depending on screening outcome), and what media, if any, to use to send notification of the e-mail arrival. For another example, when a CallCommand call arrives at the PCI server 48, the procedure is as follows. The switch controller 152 and transaction controller 150 forward the call to the IP Functions Server 130 based on the dialed number. The IP functions 130 sends a provide.sub.-- instructions 1129+ message to the PCI database 44 to determine how to handle the call. The PCI database 44 and IP functions applications servers 130 begin a conversation of messages which perform a sequence of functions which play an announcement to the caller, send notification to the PDA, etc. When a response arrives from the PDA 30, the IP functions server 130 forwards the response to the PCI database 44. The PCI database 44 will then direct IP functions server 130 to forward the call to a routing number and/or play a synthesized message to the caller." See also, col. 6, ll. 11-19: "For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's

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	pager, and
16. The method for automatically notifying a user of an awaiting message of claim 9, wherein the messages are voice mail messages.	U.S. 5742905 discloses a method for automatically notifying a user of an awaiting message of claim 9, wherein the messages are voice mail messages. See e.g., col. 6, ll. 11-19: "For example, the subscriber may have notification of a voice mail or fax message receipt directed to a wireless PDA in the form of e-mail messages. If the subscriber's wireless PDA is not turned on or otherwise not operating, the notification may be routed to an alternate wireless or wireline network. Notification to the subscriber that a voice mail message was received may be, for example, rerouted to the subscriber's pager, and notification that a fax has been received may be rerouted to the wireline e-mail." See e.g., col. 3 ll. 10-17: "The user may need to send or receive messages from any or all of the messaging options described above at a visiting location. That is, the user may want to receive or receive notification of e-mail, faxes, phone calls, or voice mail at a visiting location or to send e-mail or faxes from a wireless terminal. The need to integrate these various types of messaging options and to interconnect the many service providers has, until now, been largely unaddressed."
17. The system for automatically notifying a user of an awaiting message of claim 1, wherein the multiple messaging systems include at least one of a PBX, a central office and the wireless communication system.	U.S. 5742905 discloses a system for automatically notifying a user of an awaiting message of claim 1, wherein the multiple messaging systems include at least one of a PBX, a central office and the wireless communication system See e.g., col. 5, ll. 28-67:

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	"FIG. 1 is a simplified overview of a personal communications internetworking ("PCI") according to the present invention. A consumer, an office for example, has various messaging equipment, such as a voice mail system 20, an e-mail terminal 22, fax machines 24, and telephones 26. These are all connected to wireline networks 29. For example, the fax 24, phone 26, and voicemail system 20 may be connected to a Public Switched Telephone Network (PSTN), part of which belongs to a particular local phone service company, and part of which belongs to a particular long distance service provider. The e-mail terminal 22 may be connected to a data packet network, such as Internet, whose packets are carried over phone lines. A mobile communications subscriber (for example an employee who works at the office described above and travels frequently) has various portable messaging equipment, such as a PDA 30, a cellular phone 32, and a pager 34. These are connected to wireless networks 39. These wireless messaging options may be provided by different service providers. That is, the cellular phone may be connected to a wireless network of a cellular phone service provider, the pager may be connected to a different wireless network maintained by a pager service provider, and the PDA may be connected to a third wireless communications network maintained by yet another service provider." "A Personal Communications Internetworking network ("PCI") 40 according to the present invention is connected between the wireless 39 and wireline networks 29. The PCI 40 permits the mobile communications subscriber to send and receive messages between disparate networks and messaging systems and a variety of service providers. The mobile communications subscriber can receive e-mail, fax, pages, and voice messages under a single phone number while using either a wireless or wireline network. The subscriber may also select the media format and serving network used to receive messages. The subscriber may also select cross-media notification of incoming messages, (i.e., the subscriber may receive notification from a pager message that a voice mail message was received)."

EXHIBIT CC-A TO REQUEST FOR EX PARTE REEXAMINATION OF U.S. PATENT 8,889,839
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	See also col. 5 ll. 41-53: "A mobile communications subscriber (for example an employee who works at the office described above and travels frequently) has various portable messaging equipment. such as a PDA 30. a cellular phone 32. and a pager 34. These are connected to wireless networks 39. These wireless messaging options may be provided by different service providers. That is. the cellular phone may be connected to a wireless network of a cellular phone service provider. the pager may be connected to a different wireless network maintained by a pager service provider, and the PDA may be connected to a third wireless communications network maintained by yet another service provider."

Request for Ex Parte Reexamination of U.S. Patent No. 5,889,839

Exhibit CC-B

Claim Chart for U.S. Patent 5,764,747, to Yue et. al.

EXHIBIT CC-B TO REQUEST FOR EX PARTE REEXAMINATION OF U.S. PATENT 8,889,839
CLAIM CHART FOR:
U. S. Patent 5,764,747, Yue et. al., "Personal Number Communication System", Filed June 6, 1995 (Continuation of Ser. No. 936,384, Aug. 26, 1992, abandoned), Issued June 9, 1998

CLAIMS OF U.S. PATENT 5,889,839	PRIOR ART CITATIONS
1. A system for automatically notifying a user of an awaiting message, comprising:	U. S. 5764747 discloses a system for automatically notifying a user of an awaiting message, comprising. See e.g., col. 4, ll. 51-60: "The voice mail service of the present invention optionally provides subscribers with numeric or alphanumeric paging notification for every voice mail message received. The subscriber is provided with the caller's name, the calling line number identification, and the time and date of the message. In addition, the voice mail service periodically notifies a subscriber having a powered on mobile phone of the existence of unchecked voice mail messages and allows the subscriber to stay on the line to check voice mail messages or to enter the administration routines of the system." See also col. 4 li 61 - col. 5 li 9: "As noted, the present invention routes facsimile transmissions directed to a subscriber's personal number to a selected destination. In particular, a subscriber has the option of choosing the delivery of the facsimile message to a destination associated with a facsimile machine of subscriber's choosing, or of storing facsimile messages in a facsimile message mailbox for retrieval at a later time. The present invention optionally notifies a pager designated by the subscriber upon receipt of a facsimile message. Information such as the number of pages of the facsimile message, the calling line number identification of the facsimile message, and the time and date of the facsimile message can be provided tot he (sic) subscriber's pager. In addition, the subscriber may scan the facsimile messages through voice synthesized announcements of facsimile message information provided to the subscriber's pager." See also col. 9 ll 16-34: "In the preferred embodiment, the present invention provides subscribers with the

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	option of being paged (numeric or alphanumeric) every time a voice mail message is received by the voice mail service of the present invention. In addition, the preferred embodiment provides announcements to a subscriber's powered on mobile phone of the - receipt of voice mail messages. When a subscriber turns on a mobile phone, the voice mail service calls and announces the presence of voice mail messages. The subscriber is presented with a choice of accepting the call, thereby allowing for the retrieval of the voice mail messages, or rejecting the call. The service waits for a predetermined interval, preferably four hours, before again notifying the subscriber of voice mail messages. However, if the subscriber clears all the messages by either deleting or saving the messages to archives, the service then notifies the subscriber only as to any new voice mail messages. Notification messages that go unanswered are retried after a predetermined interval, preferably five minutes." See also col. 9 ll 59-62: "The preferred embodiment provides subscribers with the option of receiving numeric or alphanumeric paging notification for every new facsimile message arriving in the facsimile message mailbox." See also col. 21 ll 29-34: "In the preferred embodiment, the voice mail service of the present invention provides a means of message notification other than the pager. When a subscriber turns on his/her mobile phone, the system calls the subscriber if messages are present on the voice mail service and announces that new messages are present." See also., col. 14 ll 30-48: "The voice mail service of the present invention provides subscribers with the option of receiving numeric or alpha numeric paging notification for calls delivered to the voice mail service. Preferably, the subscriber pager option is administered through the

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	touch-tone interface. The page format for the voice mail service includes a message that a voice mail- message was stored on the voice mail service. The alphanumeric page contains the acronym PNS to reference that the personal number is sending the page. The page also includes the number of current messages stored in the subscriber's mailbox, the originating calling line number identification, and the correlated database information, also referred to as the reverse white pages information, when available. The numeric page consists of numeric symbols representing information about the originating caller. In the preferred embodiment, the numeric page contains the numbers "77777" to denote that a new message has been received on the voice mail service of the present invention."
identification means for identifying a registered user of a wireless communication system, the identification means being located in the wireless communication system;	U. S. 5764747 discloses identification means for identifying a registered user of a wireless communication system, the identification means being located in the wireless communication system. See e.g., col. 3 ll 26-34: "In addition. the caller may provide the system with identity information through the input of a particular code. The system recognizes the code as identifying a priority caller. If the system fails to find or the caller does not immediately provide such identity information. the caller is requested by the system to provide such information. While the source of the communication is being identified, the system selects a first destination from the hierarchical list of destinations. The system will select automatically a mobile phone from the list of destinations if the mobile phone is powered on." See also col. 7 ll 11-28: "A subscriber may specify a mobile telephone as a destination. However,

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	communications are routed to a mobile phone only if the mobile phone is powered on or registered. The present invention is able to detect registration and usage of a mobile or cellular phone through the process of autonomous registration, which is well known to those skilled in the art. If the designated mobile phone is powered on, the system assumes the presence of the subscriber at the mobile phone destination. Thus, with one exception, the system automatically selects the mobile phone from the list of destinations for routing the communication if the mobile phone is powered on. The exception is the presence of a subscriber override. The registration of a mobile phone does not take precedence over an override direction (discussed below) entered by the subscriber. Subscribers desiring to use mobile phones, but seeking to avoid autonomous registration of mobile phones must remove the mobile phones from the destination lists used by the system." See also col. 21 ll 29-34: "In the preferred embodiment, the voice mail service of the present invention provides a means of message notification other than the pager. When a subscriber turns on hislher mobile phone, the system calls the subscriber if messages are present on the voice mail service and announces that new messages are present. See also col. 2 ll. 56-59: "There is also a need in the art for a method and apparatus which minimize the number of identification numbers and security numbers for communication devices associated with an individual." See also col. 5 ll. 16-19: "It is an additional object of the present invention to provide a personal number which minimizes the number of identification numbers and security numbers for communications devices used by a subscriber."

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	See also col. 12 ll. 1-6: "Referring again to step 71, if autonomous registration exists for the mobile number retrieved from the list of destinations. in step 80 the system consults the service circuit handler on mobile registration. In step 81. the system checks whether the mobile phone is registered. If it is registered. the system calls a subscriber pursuant to step 72." See e.g. col. 5 li. 65 - col. 6 li. 34: "Preferably. the interface to the public switched telephone network 12 for the network platform 11 is provided by standard interconnect facilities, such as ISDN, connected to a local exchange carrier (LEC) end office. The LEC end office provides calling line number identification over the ISDN BRI facilities. The network platform 11 may also be interfaced to at least 5 one mobile telephone switching office (MTSO) for reception and transmission of communications to mobile telephones. In the preferred embodiment, the network platform is interfaced to two MTSO's 13, 14. A type IIA trunking interface, consisting of twenty-four channels. provides the trunking between the MTSO I 13 and the network platform 11. The MTSO's 13, 14 are linked by a type IIA tie-trunk, and a type IIA trunking interface. Through this interconnection. calls made by subscribers using mobile phones can be routed properly to the network platform 11 by either MTSO. Both MTSO's 13, 14 route incoming calls to the network platform 11 based on the Numbering Plan Area (NPA). End Office Code (NXX) or 1000 block number group, if required. Both MTSO's pass calling line number identification to the network platform via the IIA trunk on all mobile calls originating from within the MTSO switches. and all incoming calls from the local exchange carrier (LEC) tandem office. Preferably. the network platform 11 is connected to LEC end offices and to other carriers interconnected

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	through the LEC Class 4 tandem switching system. In the preferred embodiment. the network platform 11 is interfaced to a roamer detection module (RDM) (not shown) in each MTSO 13, 14 when subscriber mobile telephones are powered on. Mobile phone registration information is delivered by the roamer detection module to the network platform in a manner well known to those skilled in the art such as through mobile detection software. The network platform may also interface with the MTSO's via standard signaling interface (i.e.. IS-4l, 557) to detect the status of mobile or wireline subscribers."
mail notification means for notifying the registered user of an awaiting message; and	U. S. 5764747 discloses mail notification means for notifying the registered user of an awaiting message. See e.g., col. 4 ll 31-60: "The subscriber is also provided with the caller's name, and the time of the day and date of the message. Advantageously. the subscriber does not have to record separately the calling line of the caller or leave the voice mail service in order to return the call. The subscriber is able to return the call while the message is fresh in mind. When the telephone conference terminates. the voice mail service automatically returns the subscriber to the next recorded message in the voice mail service. In addition. the present invention alerts a subscriber reviewing voice mail messages of an incoming telephone call. The subscriber has the option of interrupting the review of voice mail messages to take the incoming call. If the subscriber selects this option. the subscriber is connected to the incoming call and. once this communication has been completed. the voice mail service returns the subscriber to the departure point in the voice mail messages. If the subscriber opts to reject the incoming call. the present

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	invention routes the call to the selected default destination. The voice mail service of the present invention optionally provides subscribers with numeric or alphanumeric paging notification for every voice mail message received. The subscriber is provided with the caller's name, the calling line number identification, and the time and date of the message. In addition, the voice mail service periodically notifies a subscriber having a powered on mobile phone of the existence of unchecked voice mail messages and allows the subscriber to stay on the line to check voice mail messages or to enter the administration routines of the system." See also col. 4 li 61 - col. 5 li 9: "As noted, the present invention routes facsimile transmissions directed to a subscriber's personal number to a selected destination. In particular, a subscriber has the option of choosing the delivery of the facsimile message to a destination associated with a facsimile machine of subscriber's choosing, or of storing facsimile messages in a facsimile message mailbox for retrieval at a later time. The present invention optionally notifies a pager designated by the subscriber upon receipt of a facsimile message. Information such as the number of pages of the facsimile message, the calling line number identification of the facsimile message, and the time and date of the facsimile message can be provided tot he subscriber's pager. In addition, the subscriber may scan the facsimile messages through voice synthesized announcements of facsimile message information provided to the subscriber's pager." See also col. 9 ll 16-34: "In the preferred embodiment, the present invention provides subscribers with the option of being paged (numeric or alphanumeric) every time a voice mail message is received by the voice mail service of the present invention. In addition, the preferred embodiment provides announcements to a subscriber's powered on mobile phone of

	the - receipt of voice mail messages. When a subscriber turns on a mobile phone, the voice mail service calls and announces the presence of voice mail messages. The subscriber is presented with a choice of accepting the call, thereby allowing for the retrieval of the voice mail messages, or rejecting the call. The service waits for a predetermined interval, preferably four hours, before again notifying the subscriber of voice mail messages. However, if the subscriber clears all the messages by either deleting or saving the messages to archives, the service then notifies the subscriber only as to any new voice mail messages. Notification messages that go unanswered are retried after a predetermined interval, preferably five minutes." See also col. 9 ll 59-62: "The preferred embodiment provides subscribers with the option of receiving numeric or alphanumeric paging notification for every new facsimile message arriving in the facsimile message mailbox." See also col. 12 ll 44-64: "Once the facsimile is transferred to the subscriber's facsimile machine or stored for later retrieval, the system preferably pages the subscriber to provide notification of the facsimile receipt. A formatted message consisting of the information pertaining to the facsimile message received by the system will be sent in a paced (sic) message. The system is able to either send an alphanumeric page or the standard numerical page. The page format consists of a simple message stating that the facsimile message was received through the subscriber's personal number. The alphanumeric page contains the subscriber's personal number or name, the number of current facsimile messages stored on the subscriber's mailbox, or that the facsimile message was delivered to the subscriber's facsimile machine, the originating calling line number identification, and the TSI information. The numeric page consists preferably of

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	numeric symbols representing various information pertaining to the facsimile message. In the preferred embodiment the numeric page contains the numbers "88888" denoting a facsimile message has been stored in the subscriber's mailbox." See also col. 21 ll 29-34: "In the preferred embodiment, the voice mail service of the present invention provides a means of message notification other than the pager. When a subscriber turns on hislher mobile phone, the system calls the subscriber if messages are present on the voice mail service and announces that new messages are present."
communication means for checking for awaiting messages in multiple mailboxes associated with the registered user, and for triggering the mail notification means if an awaiting message is present, wherein the multiple mailboxes being located in multiple messaging systems.	U. S. 5764747 discloses communication means for checking for awaiting messages in multiple mailboxes associated with the registered user, and for triggering the mail notification means if an awaiting message is present, wherein the multiple mailboxes being located in multiple messaging systems. See e.g., col. 3 ll 58-63: "Advantageously, the present invention allows subscribers to use one personal number as a contact number for receipt of all communications including wireline, wireless, facsimile transmissions and pagers. In addition, the communications are delivered quickly and efficiently to the subscriber." See also col. 8 ll 38-44: "In addition, the present invention provides a voice mail service which may be designated as a destination for personal number communications. Preferably, the voice mail service of the present invention is designated as the default destination for communications. However, the subscriber may use other voice mail systems with the present invention."

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	See also col. 21 ll 29-34: "In the preferred embodiment, the voice mail service of the present invention provides a means of message notification other than the pager. When a subscriber turns on his/her mobile phone, the system calls the subscriber if messages are present on the voice mail service and announces that new messages are present." See also col. 5 ll 21-25: "It is also an object of the present invention to provide a personal number communications system which speeds the proper delivery of communications by including features such as call announcement, call screening, facsimile transmitters and receivers, voice mail services and pacers. (sic)" See also col. 9 ll 16-34: "In the preferred embodiment, the present invention provides subscribers with the option of being paged (numeric or alphanumeric) every time a voice mail message is received by the voice mail service of the present invention. In addition, the preferred embodiment provides announcements to a subscriber's powered on mobile phone of the - receipt of voice mail messages. When a subscriber turns on a mobile phone, the voice mail service calls and announces the presence of voice mail messages. The subscriber is presented with a choice of accepting the call, thereby allowing for the retrieval of the voice mail messages, or rejecting the call. The service waits for a predetermined interval, preferably four hours, before again notifying the subscriber of voice mail messages. However, if the subscriber clears all the messages by either deleting or saving the messages to archives, the service then notifies the subscriber only as to any new voice mail messages. Notification messages that go unanswered are retried after a predetermined interval, preferably five minutes."

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	See also col. 15 ll 36-39: "The administration operations for the personal number communication system 10 consist of five menus: call routing call announcement, user options, voice mail retrieval, and facsimile message retrieval." See also col. 21 ll 29-34: "In the preferred embodiment, the voice mail service of the present invention provides a means of message notification other than the pager. When a subscriber turns on his/her mobile phone, the system calls the subscriber if messages are present on the voice mail service and announces that new messages are present." See e.g., col. 9 ll 59-62: "The preferred embodiment provides subscribers with the option of receiving numeric or alphanumeric paging notification for every new facsimile message arriving in the facsimile message mailbox." See also col. 15 ll 36-39: "The administration operations for the personal number communication system 10 consist of five menus: call routing call announcement, user options, voice mail retrieval, and facsimile message retrieval."

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2. The system for automatically notifying a user of an awaiting message of claim 1, wherein the communication means checks each of the multiple mailboxes on a periodic basis.	U. S. 5764747 discloses a The system for automatically notifying a user of an awaiting message of claim 1, wherein the communication means checks each of the multiple mailboxes on a periodic basis. See e.g., col. 4 ll 31-60: "The subscriber is also provided with the caller's name, and the time of the day and date of the message. Advantageously. the subscriber does not have to record separately the calling line of the caller or leave the voice mail service in order to return the call. The subscriber is able to return the call while the message is fresh in mind. When the telephone conference terminates. the voice mail service automatically returns the subscriber to the next recorded message in the voice mail service. In addition. the present invention alerts a subscriber reviewing voice mail messages of an incoming telephone call. The subscriber has the option of interrupting the review of voice mail messages to take the incoming call. If the subscriber selects this option. the subscriber is connected to the incoming call and. once this communication has been completed. the voice mail service returns the subscriber to the departure point in the voice mail messages. If the subscriber opts to reject the incoming call. the present invention routes the call to the selected default destination. The voice mail service of the present invention optionally provides subscribers with numeric or alphanumeric paging notification for every voice mail message received. The subscriber is provided with the caller's name, the calling line number identification, and the time and date of the message. In addition, the voice mail service periodically notifies a subscriber having a powered on mobile phone of the existence

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	of unchecked voice mail messages and allows the subscriber to stay on the line to check voice mail messages or to enter the administration routines of the system."
3. The system for automatically notifying a user of an awaiting message of claim 1, wherein the mail notification means is a voice mail notification system.	U. S. 5764747 discloses a system for automatically notifying a user of an awaiting message of claim 1, wherein the mail notification means is a voice mail notification system. See e.g., col. 4 ll 31-60: "The subscriber is also provided with the caller's name, and the time of the day and date of the message. Advantageously. the subscriber does not have to record separately the calling line of the caller or leave the voice mail service in order to return the call. The subscriber is able to return the call while the message is fresh in mind. When the telephone conference terminates. the voice mail service automatically returns the subscriber to the next recorded message in the voice mail service. In addition. the present invention alerts a subscriber reviewing voice mail messages of an incoming telephone call. The subscriber has the option of interrupting the review of voice mail messages to take the incoming call. If the subscriber selects this option. the subscriber is connected to the incoming call and. once this communication has been completed. the voice mail service returns the subscriber to the departure point in the voice mail messages. If the subscriber opts to reject the incoming call. the present invention routes the call to the selected default destination. The voice mail service of the present invention optionally provides subscribers with numeric or alphanumeric paging notification for every voice mail message received. The subscriber is provided with the caller's name, the calling line number identification, and the time and date of the message. In addition, the voice mail service periodically notifies a subscriber having a powered on mobile phone of the existence

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	of unchecked voice mail messages and allows the subscriber to stay on the line to check voice mail messages or to enter the administration routines of the system."
4. The system for automatically notifying a user of an awaiting message of claim 1, wherein the mail notification means connects the registered user with a mailbox in a messaging system containing the awaiting message.	U. S. 5764747 discloses a system for automatically notifying a user of an awaiting message of claim 1, wherein the mail notification means connects the registered user with a mailbox in a messaging system containing the awaiting message. See e.g., col. 4 ll 31-60: "The subscriber is also provided with the caller's name, and the time of the day and date of the message. Advantageously. the subscriber does not have to record separately the calling line of the caller or leave the voice mail service in order to return the call. The subscriber is able to return the call while the message is fresh in mind. When the telephone conference terminates. the voice mail service automatically returns the subscriber to the next recorded message in the voice mail service. In addition. the present invention alerts a subscriber reviewing voice mail messages of an incoming telephone call. The subscriber has the option of interrupting the review of voice mail messages to take the incoming call. If the subscriber selects this option. the subscriber is connected to the incoming call and. once this communication has been completed. the voice mail service returns the subscriber to the departure point in the voice mail messages. If the subscriber opts to reject the incoming call. the present invention routes the call to the selected default destination. The voice mail service of the present invention optionally provides subscribers with numeric or alphanumeric paging notification for every voice mail message received. The subscriber is provided with the caller's name, the calling line number identification, and the time and date of the message. In addition, the voice mail service periodically notifies a subscriber having a powered on mobile phone of the existence

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	of unchecked voice mail messages and allows the subscriber to stay on the line to check voice mail messages or to enter the administration routines of the system."
5. The system for automatically notifying a user of an awaiting message of claim 1, wherein the mail notification means collects the awaiting message and gives the registered user the option of listening to the awaiting message.	U. S. 5764747 discloses a system for automatically notifying a user of an awaiting message of claim 1, wherein the mail notification means collects the awaiting message and gives the registered user the option of listening to the awaiting message. See e.g., col. 4 ll 31-60: "The subscriber is also provided with the caller's name, and the time of the day and date of the message. Advantageously. the subscriber does not have to record separately the calling line of the caller or leave the voice mail service in order to return the call. The subscriber is able to return the call while the message is fresh in mind. When the telephone conference terminates. the voice mail service automatically returns the subscriber to the next recorded message in the voice mail service. In addition. the present invention alerts a subscriber reviewing voice mail messages of an incoming telephone call. The subscriber has the option of interrupting the review of voice mail messages to take the incoming call. If the subscriber selects this option. the subscriber is connected to the incoming call and. once this communication has been completed. the voice mail service returns the subscriber to the departure point in the voice mail messages. If the subscriber opts to reject the incoming call. the present invention routes the call to the selected default destination. The voice mail service of the present invention optionally provides subscribers with numeric or alphanumeric paging notification for every voice mail message received. The subscriber is provided with the caller's name, the calling line number identification, and the time and date of the message. In addition, the voice mail service periodically notifies a subscriber having a powered on mobile phone of the existence

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	of unchecked voice mail messages and allows the subscriber to stay on the line to check voice mail messages or to enter the administration routines of the system."
6. The system for automatically notifying a user of an awaiting message of claim 5, wherein the identification means identifies a registration number, and wherein both the registration number and a password are needed for listening to the awaiting message.	U. S. 5764747 discloses a system for automatically notifying a user of an awaiting message of claim 5, wherein the identification means identifies a registration number, and wherein both the registration number and a password are needed for listening to the awaiting message. See e.g. col. 3 ll. 16-31: "Any communication directed to a subscriber's personal number is received by the system and the source of the communication is identified. The identification is made in one of several ways. First, the calling line number of the communication is identified and compared to entries in a database containing correlated calling line number and identity information. Second. the subscriber may have provided the system with identity information corresponding to particular calling lines. For example. the subscriber may have designated persons using certain calling lines as priority callers. In addition. the caller may provide the system with identity information through the input of a particular code. The system recognizes the code as identifying a priority caller. If the system fails to find or the caller does not immediately provide such identity information. the caller is requested by the system to provide such information." See e.g. col. 8 ll. 11-24: "The present invention also provides for the identification of priority callers making calls from non-priority telephone numbers. The subscriber selectively supplies priority callers with a code. When calling the subscriber's personal number, the caller enters the code after hearing the initial greeting from the system. The caller is then asked for identification information. Then, the system announces the call to the subscriber as a priority call and identifies the priority caller with the supplied information. In the

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CLAIM CHART FOR:
U. S. Patent 5,764,747, Yue et. al., "Personal Number Communication System",
Filed June 6, 1995 (Continuation of Ser. No. 936,384, Aug. 26, 1992, abandoned), Issued June 9, 1998

	preferred embodiment, the subscriber has the option of overriding the destination list and designating a particular destination for priority callers only. When a priority override is established all non-priority callers are routed directly to the default destination." See also col. 7 ll. 24-26: "The registration of a mobile phone does not take precedence over an override direction (discussed below) entered by the subscriber."
7. The system for automatically notifying a user of an awaiting message of claim 1, wherein the registered user can interact with the system and disable the system.	U. S. 5764747 discloses a system for automatically notifying a user of an awaiting message of claim 1, wherein the registered user can interact with the system and disable the system. See e.g. col. 3 ll. 6-15: "Stated generally. the communications system of the present invention assigns a personal number to each subscriber. In turn. the system receives communication routing information in the form of one or more hierarchical lists of destinations based on the time of day and day of the week from each subscriber. The hierarchy and composition of the destination lists may be changed by the subscriber, and the subscriber may enable an override or make a registration to direct selected communications to a specific destination. as necessary." See also col. 7 ll. 2-11: "In the preferred embodiment. the subscriber provides a hierarchical list of four destinations. The present invention also provides that the destinations in the hierarchical list may be changed or reordered depending upon the day of the week, or

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	the time of day. In the preferred embodiment, subscribers supply a destination list for use on weekdays and a second destination list for use on weekends. Preferably, the system also allows the subscriber to override any of the destination lists for all types of communications or for selected callers."
8. The system for automatically notifying a user of an awaiting message of claim 1, wherein a telephone call is placed to the registered user, the telephone call notifying the registered user of the awaiting message.	U. S. 5764747 discloses a system for automatically notifying a user of an awaiting message of claim 1, wherein a telephone call is placed to the registered user, the telephone call notifying the registered user of the awaiting message. See e.g. col. 21 ll 29-34: "In the preferred embodiment, the voice mail service of the present invention provides a means of message notification other than the pager. When a subscriber turns on his/her mobile phone, the system calls the subscriber if messages are present on the voice mail service and announces that new messages are present."
9. A method for automatically notifying a user of an awaiting message, comprising the steps of:	U. S. 5764747 discloses a method for automatically notifying a user of an awaiting message. See e.g., col. 4, ll. 51-60: "The voice mail service of the present invention optionally provides subscribers with numeric or alphanumeric paging notification for every voice mail message received. The subscriber is provided with the caller's name, the calling line number identification, and the time and date of the message. In addition, the voice mail service periodically notifies a subscriber having a powered on mobile phone of the existence of unchecked voice mail messages and allows the subscriber to stay on the line to check voice mail messages or to enter the administration routines of the system." col. 4 li 61 - col. 5 li 9:

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	"As noted, the present invention routes facsimile transmissions directed to a subscriber's personal number to a selected destination. In particular, a subscriber has the option of choosing the delivery of the facsimile message to a destination associated with a facsimile machine of subscriber's choosing, or of storing facsimile messages in a facsimile message mailbox for retrieval at a later time. The present invention optionally notifies a pager designated by the subscriber upon receipt of a facsimile message. Information such as the number of pages of the facsimile message, the calling line number identification of the facsimile message, and the time and date of the facsimile message can be provided tot he (sic) subscriber's pager. In addition, the subscriber may scan the facsimile messages through voice synthesized announcements of facsimile message information provided to the subscriber's pager." col. 9 ll 16-34: "In the preferred embodiment, the present invention provides subscribers with the option of being paged (numeric or alphanumeric) every time a voice mail message is received by the voice mail service of the present invention. In addition, the preferred embodiment provides announcements to a subscriber's powered on mobile phone of the - receipt of voice mail messages. When a subscriber turns on a mobile phone, the voice mail service calls and announces the presence of voice mail messages. The subscriber is presented with a choice of accepting the call, thereby allowing for the retrieval of the voice mail messages, or rejecting the call. The service waits for a predetermined interval, preferably four hours, before again notifying the subscriber of voice mail messages. However, if the subscriber clears all the messages by either deleting or saving the messages to archives, the service then notifies the subscriber only as to any new voice mail messages. Notification messages that go unanswered are retried after a predetermined interval, preferably five minutes." col. 9 ll 59-62:

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	"The preferred embodiment provides subscribers with the option of receiving numeric or alphanumeric paging notification for every new facsimile message arriving in the facsimile message mailbox." col. 21 ll 29-34: "In the preferred embodiment, the voice mail service of the present invention provides a means of message notification other than the pager. When a subscriber turns on his/her mobile phone, the system calls the subscriber if messages are present on the voice mail service and announces that new messages are present." see e.g., col. 14 ll 30-48: "The voice mail service of the present invention provides subscribers with the option of receiving numeric or alpha numeric paging notification for calls delivered to the voice mail service. Preferably, the subscriber pager option is administered through the touch-tone interface. The page format for the voice mail service includes a message that a voice mail- message was stored on the voice mail service. The alphanumeric page contains the acronym PNS to reference that the personal number is sending the page. The page also includes the number of current messages stored in the subscriber's mailbox, the originating calling line number identification, and the correlated database information, also referred to as the reverse white pages information, when available. The numeric page consists of numeric symbols representing information about the originating caller. In the preferred embodiment, the numeric page contains the numbers "77777" to denote that a new message has been received on the voice mail service of the present invention."
a) recognizing a cellular telephone, the recognizing using a registration number of the cellular telephone, the registration number identifying a user;	U. S. 5764747 discloses recognizing a cellular telephone, the recognizing using a registration number of the cellular telephone, the registration number identifying a user.

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	See e.g., col. 3 ll 26-34: "In addition. the caller may provide the system with identity information through the input of a particular code. The system recognizes the code as identifying a priority caller. If the system fails to find or the caller does not immediately provide such identity information. the caller is requested by the system to provide such information. While the source of the communication is being identified, the system selects a first destination from the hierarchical list of destinations. The system will select automatically a mobile phone from the list of destinations if the mobile phone is powered on." See also col. 7 ll 11-28: "A subscriber may specify a mobile telephone as a destination. However, communications are routed to a mobile phone only if the mobile phone is powered on or registered. The present invention is able to detect registration and usage of a mobile or cellular phone through the process of autonomous registration, which is well known to those skilled in the art. If the designated mobile phone is powered on, the system assumes the presence of the subscriber at the mobile phone destination. Thus, with one exception, the system automatically selects the mobile phone from the list of destinations for routing the communication if the mobile phone is powered on. The exception is the presence of a subscriber override. The registration of a mobile phone does not take precedence over an override direction (discussed below) entered by the subscriber. Subscribers desiring to use mobile phones, but seeking to avoid autonomous registration of mobile phones must remove the mobile phones from the destination lists used by the system." See also col. 21 ll 29-34:

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	"In the preferred embodiment, the voice mail service of the present invention provides a means of message notification other than the pager. When a subscriber turns on hislher mobile phone, the system calls the subscriber if messages are present on the voice mail service and announces that new messages are present. See also col. 2 ll. 56-59: "There is also a need in the art for a method and apparatus which minimize the number of identification numbers and security numbers for communication devices associated with an individual." See also col. 5 ll. 16-19: "It is an additional object of the present invention to provide a personal number which minimizes the number of identification numbers and security numbers for communications devices used by a subscriber." See also col. 12 ll. 1-6: "Referring again to step 71, if autonomous registration exists for the mobile number retrieved from the list of destinations. in step 80 the system consults the service circuit handler on mobile registration. In step 81. the system checks whether the mobile phone is registered. If it is registered. the system calls a subscriber pursuant to step 72."

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b) checking for mailboxes associated with the user;	U. S. 5764747 discloses checking for mailboxes associated with the user." See e.g., col. 9 ll 59-62: "The preferred embodiment provides subscribers with the option of receiving numeric or alphanumeric paging notification for every new facsimile message arriving in the facsimile message mailbox." See also col. 15 ll 36-39: "The administration operations for the personal number communication system 10 consist of five menus: call routing call announcement, user options, voice mail retrieval, and facsimile message retrieval." See also col. 21 ll 29-34: "In the preferred embodiment, the voice mail service of the present invention provides a means of message notification other than the pager. When a subscriber turns on his/her mobile phone, the system calls the subscriber if messages are present on the voice mail service and announces that new messages are present."
c) checking for awaiting messages in the mailboxes if the mailboxes exist, wherein the mailboxes are located in multiple messaging systems; and	U. S. 5764747 discloses checking for awaiting messages in the mailboxes if the mailboxes exist, wherein the mailboxes are located in multiple messaging systems. See e.g., col. 3 ll 58-63: "Advantageously, the present invention allows subscribers to use one personal number as a contact number for receipt of all communications including wireline, wireless, facsimile transmissions and pagers. In addition, the communications are delivered quickly and efficiently to the subscriber." See also col. 8 ll 38-44:

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	"In addition, the present invention provides a voice mail service which may be designated as a destination for personal number communications. Preferably, the voice mail service of the present invention is designated as the default destination for communications. However, the subscriber may use other voice mail systems with the present invention." See also col. 5 ll 21-25: "It is also an object of the present invention to provide a personal number communications system which speeds the proper delivery of communications by including features such as call announcement, call screening, facsimile transmitters and receivers, voice mail services and pacers. (sic)" See also col. 9 ll 16-34: "In the preferred embodiment, the present invention provides subscribers with the option of being paged (numeric or alphanumeric) every time a voice mail message is received by the voice mail service of the present invention. In addition, the preferred embodiment provides announcements to a subscriber's powered on mobile phone of the - receipt of voice mail messages. When a subscriber turns on a mobile phone, the voice mail service calls and announces the presence of voice mail messages. The subscriber is presented with a choice of accepting the call, thereby allowing for the retrieval of the voice mail messages, or rejecting the call. The service waits for a predetermined interval, preferably four hours, before again notifying the subscriber of voice mail messages. However, if the subscriber clears all the messages by either deleting or saving the messages to archives, the service then notifies the subscriber only as to any new voice mail messages. Notification messages that go unanswered are retried after a predetermined interval, preferably five minutes."

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	See also col. 15 ll 36-39: "The administration operations for the personal number communication system 10 consist of five menus: call routing call announcement, user options, voice mail retrieval, and facsimile message retrieval." See also col. 21 ll 29-34: "In the preferred embodiment, the voice mail service of the present invention provides a means of message notification other than the pager. When a subscriber turns on his/her mobile phone, the system calls the subscriber if messages are present on the voice mail service and announces that new messages are present."
d) contacting the user with information related to the awaiting message if the awaiting message is present.	U. S. 5764747 discloses contacting the user with information related to the awaiting message if the awaiting message is present." See e.g., col. 4 ll 31-60: "The subscriber is also provided with the caller's name, and the time of the day and date of the message. Advantageously. the subscriber does not have to record separately the calling line of the caller or leave the voice mail service in order to return the call. The subscriber is able to return the call while the message is fresh in mind. When the telephone conference terminates. the voice mail service automatically returns the subscriber to the next recorded message in the voice mail service. In addition. the present invention alerts a subscriber reviewing voice mail messages of an incoming telephone call. The subscriber has the option of interrupting the review of voice mail messages to take the incoming call. If the subscriber selects this option. the

	subscriber is connected to the incoming call and. once this communication has been completed. the voice mail service returns the subscriber to the departure point in the voice mail messages. If the subscriber opts to reject the incoming call. the present invention routes the call to the selected default destination. The voice mail service of the present invention optionally provides subscribers with numeric or alphanumeric paging notification for every voice mail message received. The subscriber is provided with the caller's name, the calling line number identification, and the time and date of the message. In addition, the voice mail service periodically notifies a subscriber having a powered on mobile phone of the existence of unchecked voice mail messages and allows the subscriber to stay on the line to check voice mail messages or to enter the administration routines of the system." See also col. 4 li 61 - col. 5 li 9: "As noted, the present invention routes facsimile transmissions directed to a subscriber's personal number to a selected destination. In particular, a subscriber has the option of choosing the delivery of the facsimile message to a destination associated with a facsimile machine of subscriber's choosing, or of storing facsimile messages in a facsimile message mailbox for retrieval at a later time. The present invention optionally notifies a pager designated by the subscriber upon receipt of a facsimile message. Information such as the number of pages of the facsimile message, the calling line number identification of the facsimile message, and the time and date of the facsimile message can be provided tot he subscriber's pager. In addition, the subscriber may scan the facsimile messages through voice synthesized announcements of facsimile message information provided to the subscriber's pager." See also col. 9 ll 16-34: "In the preferred embodiment, the present invention provides subscribers with the

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	option of being paged (numeric or alphanumeric) every time a voice mail message is received by the voice mail service of the present invention. In addition, the preferred embodiment provides announcements to a subscriber's powered on mobile phone of the - receipt of voice mail messages. When a subscriber turns on a mobile phone, the voice mail service calls and announces the presence of voice mail messages. The subscriber is presented with a choice of accepting the call, thereby allowing for the retrieval of the voice mail messages, or rejecting the call. The service waits for a predetermined interval, preferably four hours, before again notifying the subscriber of voice mail messages. However, if the subscriber clears all the messages by either deleting or saving the messages to archives, the service then notifies the subscriber only as to any new voice mail messages. Notification messages that go unanswered are retried after a predetermined interval, preferably five minutes." See also col. 9 ll 59-62: "The preferred embodiment provides subscribers with the option of receiving numeric or alphanumeric paging notification for every new facsimile message arriving in the facsimile message mailbox." See also col. 12 ll 44-64: "Once the facsimile is transferred to the subscriber's facsimile machine or stored for later retrieval, the system preferably pages the subscriber to provide notification of the facsimile receipt. A formatted message consisting of the information pertaining to the facsimile message received by the system will be sent in a paced (sic) message. The system is able to either send an alphanumeric page or the standard numerical page. The page format consists of a simple message stating that the facsimile message was received through the subscriber's personal number. The alphanumeric page contains the subscriber's personal number or name, the number of current facsimile

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	messages stored on the subscriber's mailbox, or that the facsimile message was delivered to the subscriber's facsimile machine, the originating calling line number identification, and the TSI information. The numeric page consists preferably of numeric symbols representing various information pertaining to the facsimile message. In the preferred embodiment the numeric page contains the numbers "88888" denoting a facsimile message has been stored in the subscriber's mailbox." See also col. 21 ll 29-34: "In the preferred embodiment, the voice mail service of the present invention provides a means of message notification other than the pager. When a subscriber turns on hislher mobile phone, the system calls the subscriber if messages are present on the voice mail service and announces that new messages are present."
10. The method for automatically notifying a user of an awaiting message of claim 9, further comprising the step of collecting the awaiting message if the awaiting message is present.	U. S. 5764747 discloses a method for automatically notifying a user of an awaiting message of claim 9, further comprising the step of collecting the awaiting message if the awaiting message is present. See e.g., col. 21 ll 29-44: "In the preferred embodiment, the voice mail service of the present invention provides a means of message notification other than the pager. When a subscriber turns on his/her mobile phone, the system calls the subscriber if messages are present on the voice mail service and announces that new messages are present. The subscriber then has three choices: accepting the call and retrieving his/her messages; rejecting the call; or hanging up. Whether the subscriber accepts or rejects the call, once the call has been answered, the system will not notify the subscriber again of his/her messages for a four hour interval. If the subscriber clears all new messages by either deleting them or saving them to archives, the system will notify the subscriber once any new

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	messages are left on the voice mail service of the present invention. Notification calls that are not answered by the subscriber are retried after a five minute interval." See also, col. 33 ll 21-45: Fig. 24 is entered at step 690 when the system checks for stored messages. If there are stored messages, in step 691 the system checks for urgent messages. If there are urgent messages, in step 692 the system makes the following announcement: "You have [X] urgent message, [X] messages total." In step 693, the system provides information relating to the date, time, and recorded message. In step 694, the system makes the following announcement: "Press 1 to play the current message, press 2 to delete this message, press 3 to save this message, press 4 to get envelope information, press 5 to return the call of the message party, or press 9 to exit this menu." Thus, the subscriber has six options: play message - press 1, 695; delete message - press 2, 696; save message - press 3, 697; get envelope information – press 4, 700; return call - press 5, 701; or exit menu - press 9, 702. If the subscriber chooses to play the current message, the message played in step 694 is repeated. If the subscriber chooses to delete the message, in step 703 the system makes the following announcement: "Message deleted." If the subscriber chooses to save the message, in step 704 the following message is announced: "Message saved." If the subscriber chooses to receive the envelope information, in step 705 the system announces the time of the message, the date of the message, the calling line number identification (CLID), and the caller's name. See also, Fig 25:

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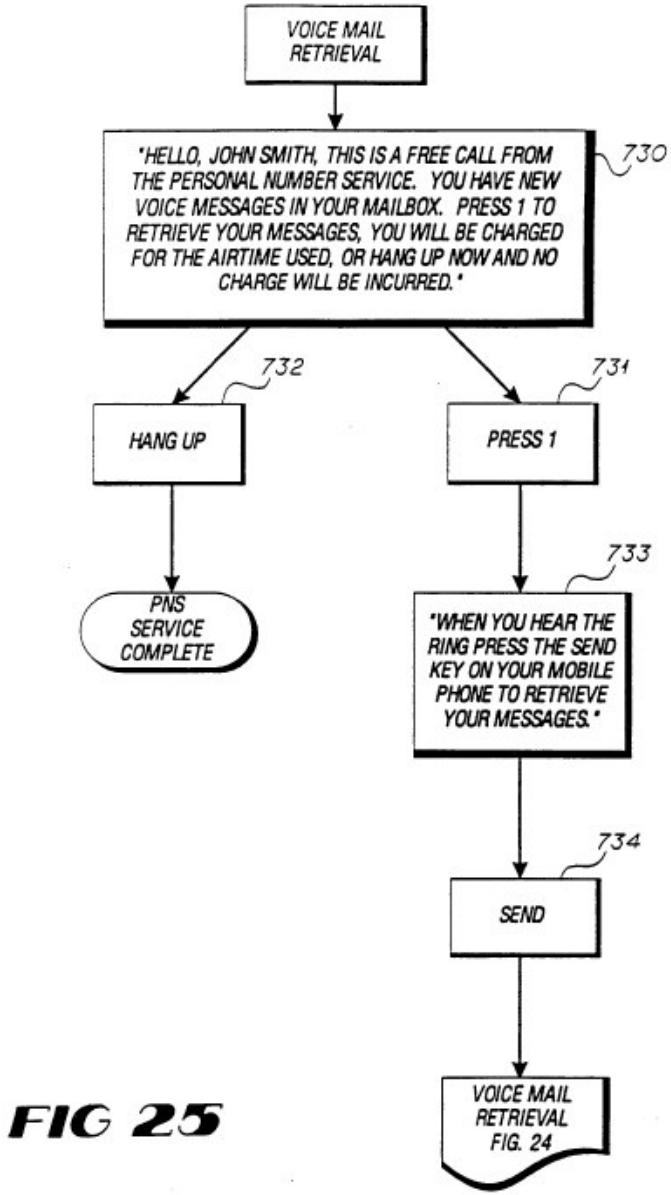

FIG 25

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11. The method for automatically notifying a user of an awaiting message of claim 10, further comprising the step of playing the collected messages for the user.	U. S. 5764747 discloses a method for automatically notifying a user of an awaiting message of claim 10, further comprising the step of playing the collected messages for the user. See e.g., col. 21 ll 29-44: "In the preferred embodiment, the voice mail service of the present invention provides a means of message notification other than the pager. When a subscriber turns on his/her mobile phone, the system calls the subscriber if messages are present on the voice mail service and announces that new messages are present. The subscriber then has three choices: accepting the call and retrieving his/her messages; rejecting the call; or hanging up. Whether the subscriber accepts or rejects the call, once the call has been answered, the system will not notify the subscriber again of his/her messages for a four hour interval. If the subscriber clears all new messages by either deleting them or saving them to archives, the system will notify the subscriber once any new messages are left on the voice mail service of the present invention. Notification calls that are not answered by the subscriber are retried after a five minute interval." See also, col. 33 ll 21-45: Fig. 24 is entered at step 690 when the system checks for stored messages. If there are stored messages, in step 691 the system checks for urgent messages. If there are urgent messages, in step 692 the system makes the following announcement: "You have [X] urgent message, [X] messages total." In step 693, the system provides information relating to the date, time, and recorded message. In step 694, the system makes the following announcement: "Press 1 to play the current message, press 2 to delete this message, press 3 to save this message, press 4 to get envelope information, press 5 to return the call of the message party, or press 9 to exit this menu." Thus, the subscriber has six options: play message - press 1, 695; delete message - press 2, 696; save message - press 3, 697; get envelope information – press 4, 700; return call - press 5, 701; or exit menu - press 9, 702. If the subscriber chooses to play the current message,

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	the message played in step 694 is repeated. If the subscriber chooses to delete the message, in step 703 the system makes the following announcement: "Message deleted." If the subscriber chooses to save the message, in step 704 the following message is announced: "Message saved." If the subscriber chooses to receive the envelope information, in step 705 the system announces the time of the message, the date of the message, the calling line number identification (CLID), and the caller's name. See also, Fig 25:

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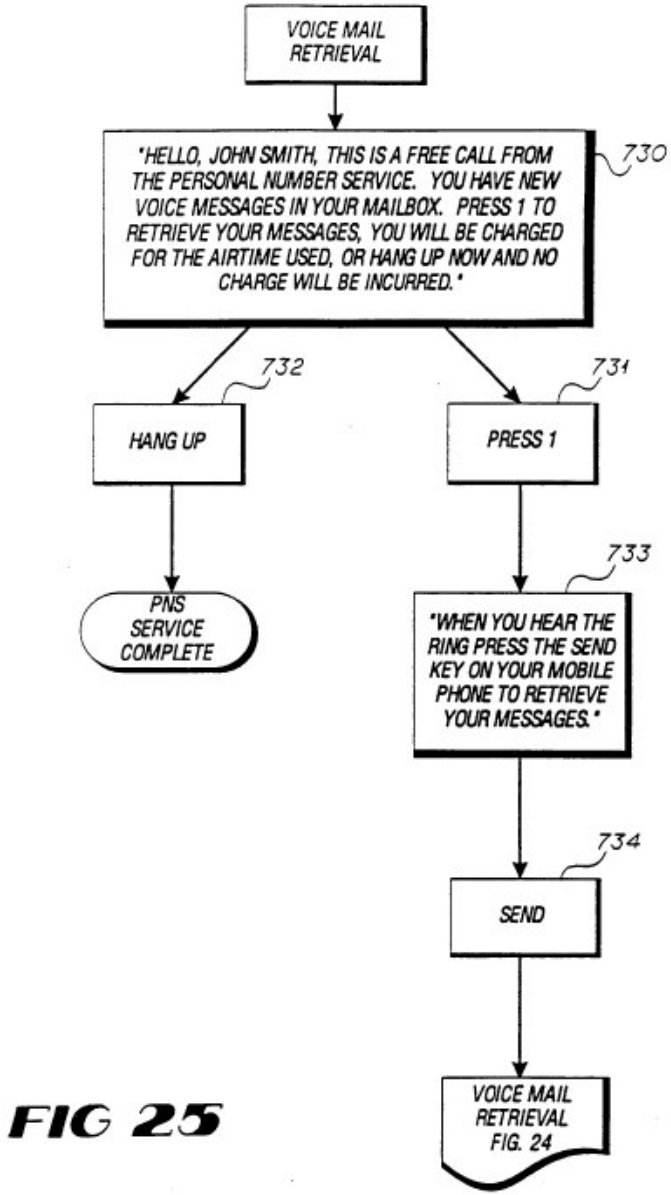

FIG 25

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12. The method for automatically notifying a user of an awaiting message of claim 9, further comprising the step of repeating steps c) and d) periodically until the user is out-of-range.	U. S. 5764747 discloses a method for automatically notifying a user of an awaiting message of claim 9, further comprising the step of repeating steps c) and d) periodically until the user is out-of-range (or in range). See e.g., col. 4 ll 56-60: "In addition, the voice mail service periodically notifies a subscriber having a powered on mobile phone of the existence of unchecked voice mail messages and allows the subscriber to stay on the line to check voice mail messages or to enter the administration routines of the system." See e.g., col. 21 ll 29-44: "In the preferred embodiment, the voice mail service of the present invention provides a means of message notification other than the pager. When a subscriber turns on his/her mobile phone, the system calls the subscriber if messages are present on the voice mail service and announces that new messages are present. The subscriber then has three choices: accepting the call and retrieving his/her messages; rejecting the call; or hanging up. Whether the subscriber accepts or rejects the call, once the call has been answered, the system will not notify the subscriber again of his/her messages for a four hour interval. If the subscriber clears all new messages by either deleting them or saving them to archives, the system will notify the subscriber once any new messages are left on the voice mail service of the present invention. Notification calls that are not answered by the subscriber are retried after a five minute interval."

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13. The method for automatically notifying a user of an awaiting message of claim 9, wherein a mailbox registration table is used when checking for the mailboxes.	U. S. 5764747 discloses a method for automatically notifying a user of an awaiting message of claim 9, wherein a mailbox registration table is used when checking for the mailboxes. For example, U. S. 5764747 discloses multiple mailboxes (voice message systems, faxes, emails, pages, etc.) that are registered to deliver notifications to a mobile device subscriber. This information is stored in a registration table. See e.g., col. 3 ll 11-15: "The hierarchy and composition of the destination lists may be changed by the subscriber, and the subscriber may enable an override or make a registration to direct selected communications to a specific destination, as necessary." See also. 7 ll 14-28: "The present invention is able to detect registration and usage of a mobile or cellular phone through the process of autonomous registration, which is well known to those skilled in the art. If the designated mobile phone is powered on, the system assumes the presence of the subscriber at the mobile phone destination. Thus, with one exception, the system automatically selects the mobile phone from the list of destinations for routing the communication if the mobile phone is powered on. The exception is the presence of a subscriber override. The registration of a mobile phone does not take precedence over an override direction (discussed below) entered by the subscriber. Subscribers desiring to use mobile phones, but seeking to avoid autonomous registration of mobile phones must remove the mobile phones from the destination lists used by the system."

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14. The method for automatically notifying a user of an awaiting message of claim 9, further comprising the step of connecting the user to the mailbox with the awaiting message.	U. S. 5764747 discloses a method for automatically notifying a user of an awaiting message of claim 9, further comprising the step of connecting the user to the mailbox with the awaiting message. See e.g., col. 4 ll 31-60: "The subscriber is also provided with the caller's name, and the time of the day and date of the message. Advantageously. the subscriber does not have to record separately the calling line of the caller or leave the voice mail service in order to return the call. The subscriber is able to return the call while the message is fresh in mind. When the telephone conference terminates. the voice mail service automatically returns the subscriber to the next recorded message in the voice mail service. In addition. the present invention alerts a subscriber reviewing voice mail messages of an incoming telephone call. The subscriber has the option of interrupting the review of voice mail messages to take the incoming call. If the subscriber selects this option. the subscriber is connected to the incoming call and. once this communication has been completed. the voice mail service returns the subscriber to the departure point in the voice mail messages. If the subscriber opts to reject the incoming call. the present invention routes the call to the selected default destination. The voice mail service of the present invention optionally provides subscribers with numeric or alphanumeric paging notification for every voice mail message received. The subscriber is provided with the caller's name, the calling line number identification, and the time and date of the message. In addition, the voice mail service periodically notifies a subscriber having a powered on mobile phone of the existence of unchecked voice mail messages and allows the subscriber to stay on the line to check voice mail messages or to enter the administration routines of the system."

EXHIBIT CC-B TO REQUEST FOR EX PARTE REEXAMINATION OF U.S. PATENT 8,889,839
CLAIM CHART FOR:
U. S. Patent 5,764,747, Yue et. al., "Personal Number Communication System",
Filed June 6, 1995 (Continuation of Ser. No. 936,384, Aug. 26, 1992, abandoned), Issued June 9, 1998

15. The method for automatically notifying a user of an awaiting message of claim 9, wherein the user is contacted by placing a telephone call to the cellular telephone.	U. S. 5764747 discloses a method for automatically notifying a user of an awaiting message of claim 9, wherein the user is contacted by placing a telephone call to the cellular telephone. See e.g. col. 21 ll 29-34: "In the preferred embodiment, the voice mail service of the present invention provides a means of message notification other than the pager. When a subscriber turns on his/her mobile phone, the system calls the subscriber if messages are present on the voice mail service and announces that new messages are present."
16. The method for automatically notifying a user of an awaiting message of claim 9, wherein the messages are voice mail messages.	U. S. 5764747 discloses a method for automatically notifying a user of an awaiting message of claim 9, wherein the messages are voice mail messages. See e.g., col. 4 ll 31-60: "The subscriber is also provided with the caller's name, and the time of the day and date of the message. Advantageously. the subscriber does not have to record separately the calling line of the caller or leave the voice mail service in order to return the call. The subscriber is able to return the call while the message is fresh in mind. When the telephone conference terminates. the voice mail service automatically returns the subscriber to the next recorded message in the voice mail service. In addition. the present invention alerts a subscriber reviewing voice mail messages of an incoming telephone call. The subscriber has the option of interrupting the review of voice mail messages to take the incoming call. If the subscriber selects this option. the subscriber is connected to the incoming call and. once this communication has been completed. the voice mail service returns the subscriber to the departure point in the

EXHIBIT CC-B TO REQUEST FOR EX PARTE REEXAMINATION OF U.S. PATENT 8,889,839
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	voice mail messages. If the subscriber opts to reject the incoming call. the present invention routes the call to the selected default destination. The voice mail service of the present invention optionally provides subscribers with numeric or alphanumeric paging notification for every voice mail message received. The subscriber is provided with the caller's name, the calling line number identification, and the time and date of the message. In addition, the voice mail service periodically notifies a subscriber having a powered on mobile phone of the existence of unchecked voice mail messages and allows the subscriber to stay on the line to check voice mail messages or to enter the administration routines of the system."
17. The system for automatically notifying a user of an awaiting message of claim 1, wherein the multiple messaging systems include at least one of a PBX, a central office and the wireless communication system.	U. S. 5764747 discloses a system for automatically notifying a user of an awaiting message of claim 1, wherein the multiple messaging systems include at least one of a PBX, a central office and the wireless communication system. See e.g. col. 5 li. 65 - col. 6 li. 34: "Preferably. the interface to the public switched telephone network 12 for the network platform 11 is provided by standard interconnect facilities, such as ISDN, connected to a local exchange carrier (LEC) end office. The LEC end office provides calling line number identification over the ISDN BRI facilities. The network platform 11 may also be interfaced to at least 5 one mobile telephone switching office (MTSO) for reception and transmission of communications to mobile telephones. In the preferred embodiment, the network platform is interfaced to two MTSO's 13, 14. A type IIA trunking interface, consisting of twenty-four channels. provides the trunking between the MTSO I 13 and the network platform 11. The MTSO's 13, 14 are linked by a type IIA tie-trunk, and a type IIA trunking interface. Through this interconnection. calls made by subscribers using mobile phones can be routed properly to the network platform 11 by either MTSO. Both MTSO's 13, 14 route incoming calls to the network platform 11 based on the Numbering Plan Area

EXHIBIT CC-B TO REQUEST FOR EX PARTE REEXAMINATION OF U.S. PATENT 8,889,839
CLAIM CHART FOR:
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Filed June 6, 1995 (Continuation of Ser. No. 936,384, Aug. 26, 1992, abandoned), Issued June 9, 1998

	(NPA). End Office Code (NXX) or 1000 block number group, if required. Both MTSO's pass calling line number identification to the network platform via the IIA trunk on all mobile calls originating from within the MTSO switches. and all incoming calls from the local exchange carrier (LEC) tandem office. Preferably. the network platform 11 is connected to LEC end offices and to other carriers interconnected through the LEC Class 4 tandem switching system. In the preferred embodiment. the network platform 11 is interfaced to a roamer detection module (RDM) (not shown) in each MTSO 13, 14 when subscriber mobile telephones are powered on. Mobile phone registration information is delivered by the roamer detection module to the network platform in a manner well known to those skilled in the art such as through mobile detection software. The network platform may also interface with the MTSO's via standard signaling interface (i.e.. IS-4l, 557) to detect the status of mobile or wireline subscribers."

Request for Ex Parte Reexamination of U.S. Patent No. 5,889,839

Exhibit OTH-A

Research In Motion Limited's Complaint for Patent Infringement, filed June 15, 2007, in the U.S. District Court for the Northern District of California, Case No. 3:07-CV-03177-MMC

ORIGINAL

FILED
2007 JUN 15 P 3:20
RICHARD W. WIEKING
CLERK, U.S. DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

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RESEARCH IN MOTION LIMITED

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

EDL

RESEARCH IN MOTION LIMITED,

Plaintiff,

v.

VISTO CORPORATION,

Defendant.

Case No. C 07 3177

COMPLAINT FOR PATENT INFRINGEMENT

DEMAND FOR JURY TRIAL

CERTIFICATION OF INTERESTED ENTITIES OR PERSONS

FED. R. CIV. P. 7.1 DISCLOSURE STATEMENT

Plaintiff Research in Motion Limited ("RIM"), by its attorneys, for its complaint against Defendant Visto Corporation ("Visto") demands a jury trial and alleges as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1 *et seq.*, brought against Visto for violation of those laws.

PARTIES

2. Plaintiff RIM is a Canadian corporation with its principal place of business at 295 Phillip Street, Waterloo, Ontario, Canada N2L 3W8.

3. Defendant Visto is a Delaware corporation with its principal place of business at 101 Redwood Shores Parkway, Redwood City, California 94065.

JURISDICTION

4. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

5. Visto has contacts that are sufficiently continuous and systematic to constitute doing business within the State and within this District. Visto has established its principal place of business within the State of California and within this District at 101 Redwood Shores Parkway in Redwood City. Further, Visto is engaging in sales and other conduct with respect to Visto Mobile suite of products and services (described below) within this District. Accordingly, this Court has personal jurisdiction over Visto.

VENUE

6. Venue properly lies in this District under 28 U.S.C. §§ 1391 and 1400(b).

INTRADISTRICT ASSIGNMENT

7. This is an action for patent infringement. According to Civil L. R. 3-2(c), it shall be assigned on a district-wide basis.

FACTUAL BACKGROUND

8. RIM is a leading designer, manufacturer and marketer of innovative wireless solutions for the worldwide mobile communications market.

9. RIM's portfolio of award-winning products are used by thousands of organizations around the world and includes the BlackBerry® wireless platform, software development tools, and software/hardware intellectual property that is licensed.

10. RIM holds all rights, title and interest in United States Patent No. 5,889,839, entitled "System and Method of Providing Automated Message Notification in a Wireless Communication System," ("the '839 patent"), which was duly and legally issued on May 30, 1999 to William J. Beyda and Shmuel Shaffer. A true and correct copy of the '839 patent is attached hereto as Exhibit A.

11. Visto is a provider of personal and corporate wireless messaging solutions to mobile operators for personal and corporate use.

12. Visto Mobile is the brand name that Visto uses to market and sell its wireless messaging solutions. The Visto Mobile product suite provides mobile access to corporate and personal email, calendar and address book data on mobile devices and networks. Visto Mobile products include server, desktop, and device software components that are integrated with the Visto Mobile Access Platform.

13. Visto has been and/or continues to be infringing the '839 patent directly, contributorily and/or by active inducement, by making, using, marketing, selling, offering to sell, licensing and/or supporting Visto Mobile products and services.

COUNT I
(Visto's Infringement of RIM's '839 Patent)

14. RIM realleges and incorporates herein by reference the allegations contained in Paragraphs 1 through 13.

15. Visto has been and/or continues to be directly infringing, actively inducing others to infringe, and/or contributing to the infringement of the '839 patent in this District and elsewhere by making, using, marketing, selling, offering to sell, licensing and/or supporting Visto Mobile products and services.

16. RIM has been damaged by Visto's infringement, and will continue to suffer damage and irreparable injury until the infringement is enjoined by this Court.

17. RIM is entitled to injunctive relief and damages in accordance with 35 U.S.C. §§ 271, 281, 283, 284 and 287.

18. On information and belief, and as will be shown after a reasonable opportunity for discovery, Visto's infringement has been and/or continues to be willful, making this an exceptional case under 35 U.S.C. § 285 and entitling RIM to treble damages under 35 U.S.C. § 284.

PRAYER FOR RELIEF

WHEREFORE, RIM prays for Judgment as follows:

A. That Visto has infringed, contributorily infringed and/or actively induced others to infringe the '839 patent;

B. That Visto has willfully infringed the '839 patent;

C. That, in accordance with 35 U.S.C. § 283, Visto, and all affiliates, employees, agents, officers, directors, attorneys, successors and assigns, and all those acting on behalf of or in active concert or participation with any of them, from infringing, contributorily infringe and/or inducing others to infringe the '839 patent;

D. That RIM be awarded damages sufficient to compensate it for Visto's infringement of the '839 patent;

E. That RIM be awarded prejudgment and post-judgment interest;

F. That RIM be awarded increased damages in an amount not less than three times the damages assessed, in accordance with 35 U.S.C. § 284;

G. That this case be declared "exceptional" under 35 U.S.C. § 285, and RIM be awarded its reasonable attorneys' fees, expenses, and costs incurred in this actions, in accordance with 35 U.S.C. § 284; and

H. That RIM be awarded such other and further relief as this Court shall deem appropriate.

DATED: June 15, 2007

KIRKLAND & ELLIS LLP

By: _____
Robert G. Krupka, P.C.
Marc H. Cohen
Philip T. Chen

Attorneys for Plaintiff
RESEARCH IN MOTION LIMITED

DEMAND FOR JURY TRIAL

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Plaintiff Research in Motion Limited hereby demands a jury trial of all issues triable to a jury in this action.

DATED: June 15, 2007

KIRKLAND & ELLIS LLP

By: _____
Robert G. Krupka, P.C.
Marc H. Cohen
Philip T. Chen

Attorneys for Plaintiff
RESEARCH IN MOTION LIMITED

CERTIFICATION OF INTERESTED ENTITIES OR PERSONS

Pursuant to Civil L.R. 3-16, the undersigned certifies that the following persons, firms, partnerships, corporation (including parent corporations) or other entities (i) have a financial interest in the subject matter in controversy or in a party to the proceeding, or (ii) have a non-financial interest in that subject matter or in a party that could be substantially affected by the outcome of this proceeding: Fidelity Management & Research Corp. has a financial interest in Plaintiff Research in Motion Limited.

DATED: June 15, 2007

KIRKLAND & ELLIS LLP

By: _____
Robert G. Krupka, P.C.
Marc H. Cohen
Philip T. Chen

Attorneys for Plaintiff
RESEARCH IN MOTION LIMITED

FED. R. CIV. P. 7.1 DISCLOSURE STATEMENT

In accordance with Rule 7.1 of the Federal Rules of Civil Procedure, Plaintiff Research in Motion Limited states that it has no parent corporation and that no publicly held corporation owns 10% or more of its stock.

DATED: June 15, 2007

KIRKLAND & ELLIS LLP

By: _____
Robert G. Krupka, P.C.
Marc H. Cohen
Philip T. Chen

Attorneys for Plaintiff
RESEARCH IN MOTION LIMITED

EXHIBIT A

US005889839A

United States Patent [19]

Beyda et al.

[11] Patent Number: 5,889,839

[45] Date of Patent: Mar. 30, 1999

[54] **SYSTEM AND METHOD FOR PROVIDING AUTOMATED MESSAGE NOTIFICATION IN A WIRELESS COMMUNICATION SYSTEM**

[75] Inventors: **William J. Beyda**, Cupertino; **Shmuel Shaffer**, Palo Alto, both of Calif.

[73] Assignee: **Siemens Information and Communication Networks, Inc.**, Boca Raton, Fla.

[21] Appl. No.: **724,295**

[22] Filed: **Sep. 19, 1996**

[51] **Int. Cl.**[6] **H04M 3/42**; H04M 1/64

[52] **U.S. Cl.** **379/88.12**; 455/412; 455/413; 379/88.22; 379/88.25

[58] **Field of Search** 445/412, 413, 445/414; 379/88, 89, 67, 88.12, 88.22, 88.23, 88.25

[56] **References Cited**

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5,664,009	9/1997	Hurst et al.	379/88

FOREIGN PATENT DOCUMENTS

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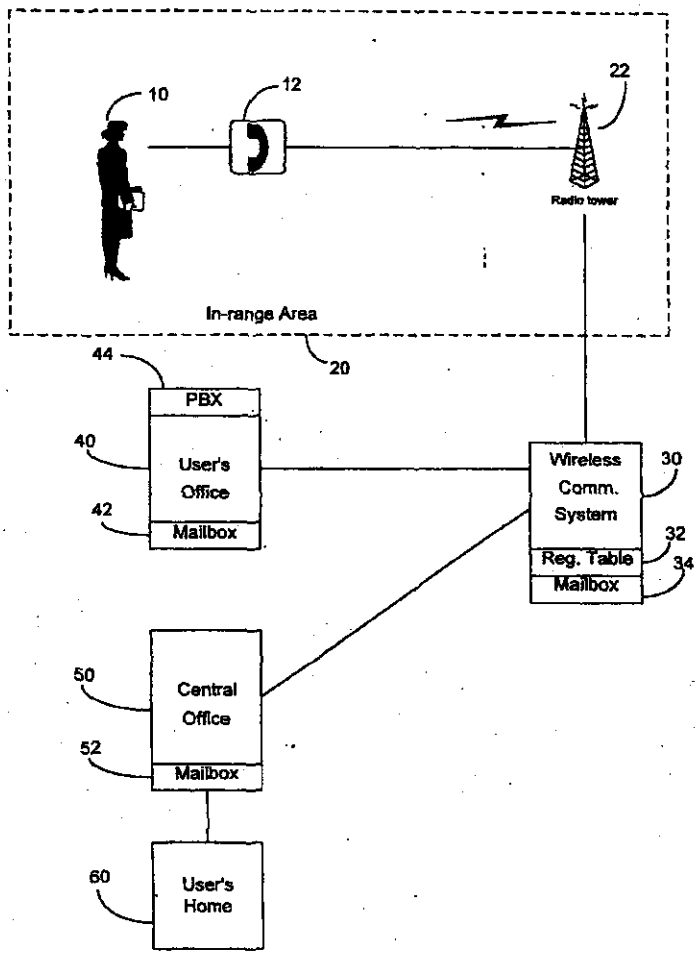
Primary Examiner—Willis R. Wolfe
Assistant Examiner—Hieu T. Vo
Attorney, Agent, or Firm—Heather S. Vance

[57] **ABSTRACT**

A system and method are provided for automatically notifying a user of an awaiting message. A wireless communication system including an identification system is utilized. The identification means identifies a registered user of the wireless communication system. A mail notification system is used for notifying the registered user of an awaiting message. A communication system checks for awaiting messages for the identified registered user. If an awaiting message is present, the communication system triggers the mail notification system.

17 Claims, 2 Drawing Sheets



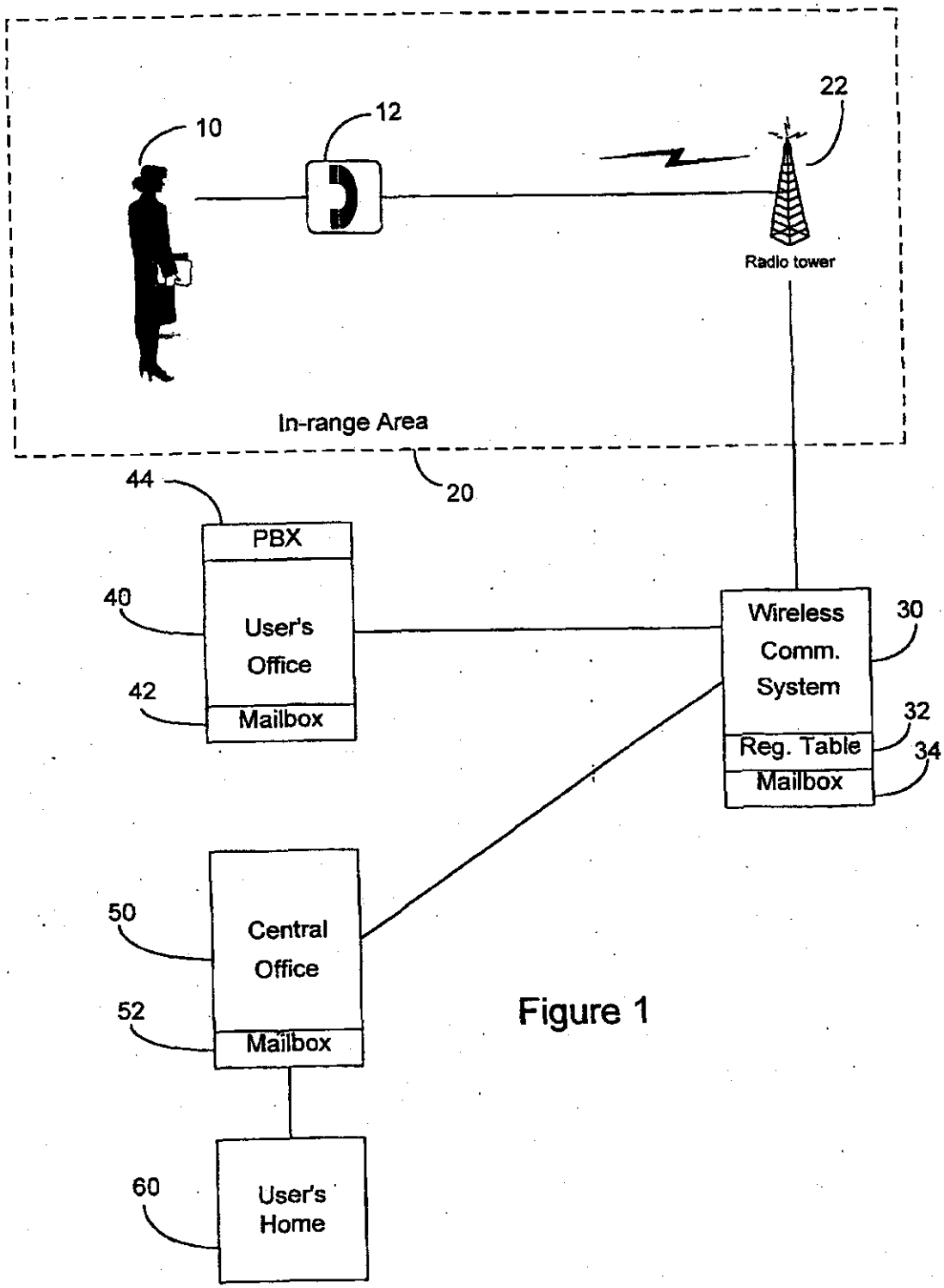

10
12
22
Radio tower
In-range Area
20
44
PBX
40
User's Office
42
Mailbox
Wireless Comm. System
30
32
Reg. Table
34
Mailbox
50
Central Office
52
Mailbox
60
User's Home

Figure 1

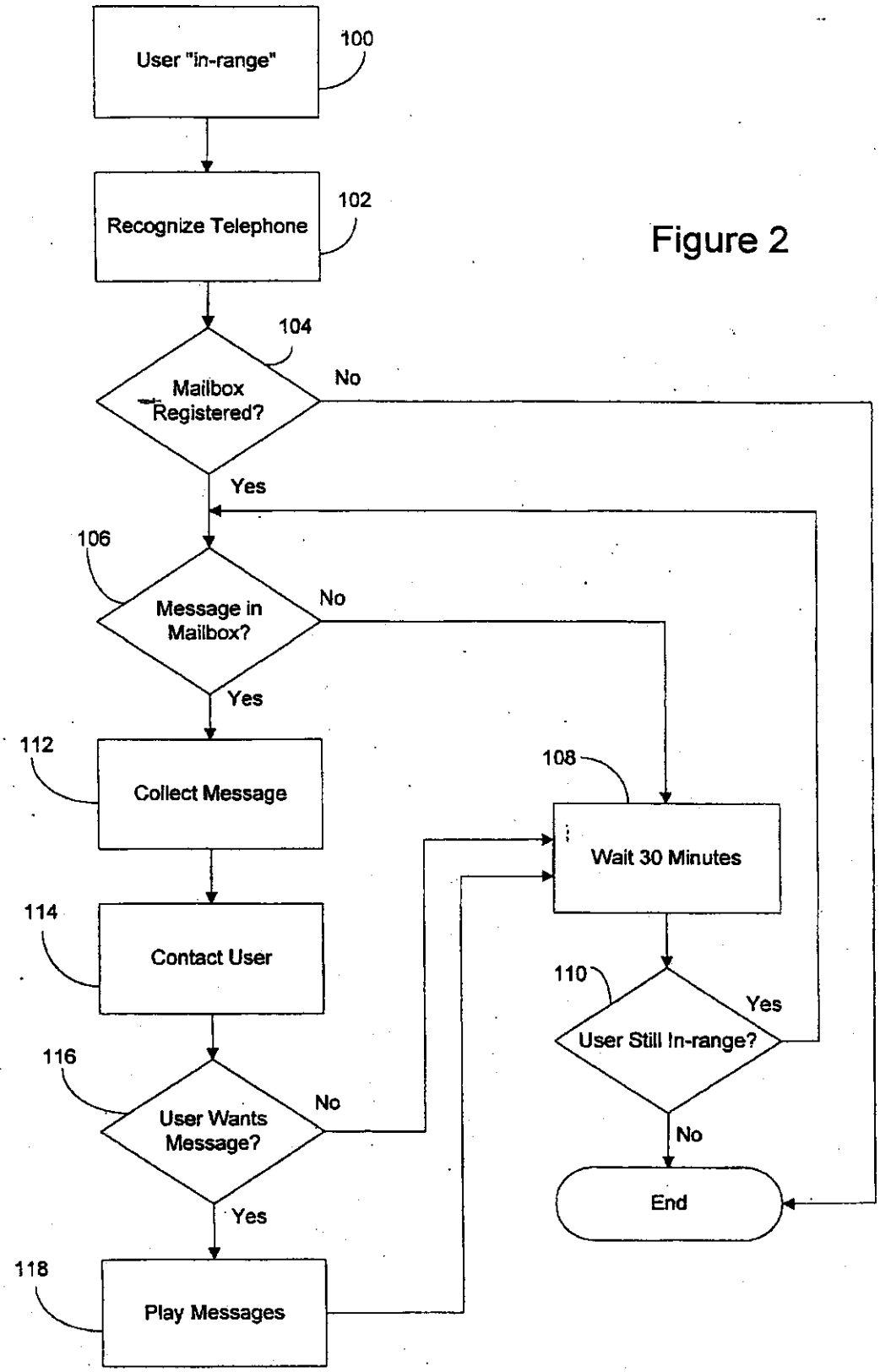

User "in-range"
100
Recognize Telephone
102
104
Mailbox Registered?
No
Yes
106
Message in Mailbox?
No
Yes
112
Collect Message
108
Wait 30 Minutes
114
Contact User
110
Yes
User Still In-range?
116
User Wants Message?
No
No
Yes
End
118
Play Messages

Figure 2

SYSTEM AND METHOD FOR PROVIDING AUTOMATED MESSAGE NOTIFICATION IN A WIRELESS COMMUNICATION SYSTEM

BACKGROUND OF THE INVENTION

1. Field of the Invention

The invention relates to connecting a messaging system with a wireless communication system, and more particularly to a system and a method for automatically notifying a user of an awaiting message in a wireless communication environment.

2. Description of the Related Art

Messaging systems are common in both public and private areas. For example, voice mail messaging systems are located in almost every office environment and in many private homes. Public and private wireless systems which include cellular telephones are also common. When a cellular telephone user subscribes to a messaging system, such as voice mail, from their cellular carrier, the user must periodically check for messages in that user's message mailbox. This checking is done manually by placing telephone calls. Similarly, a user who is away from the office and/or home and awaiting some message(s) must periodically check for messages in the office and/or home message mailbox(es). This is usually done by calling the office voice mail system or the home voice mail system. An office voice mail system may be connected to a PBX (private branch exchange), and a home voice mail system may be connected to a central office. Thus, both of these systems can be accessed with a telephone call from a user. In these situations, the messaging systems rely on users to remember to check their message mailbox(es).

Outcalling is available in some voice mail systems. Systems with outcalling can be programmed to call a given number when a message is received, but this is not helpful in a wireless communication environment because the cellular telephone can be out of range or turned off.

Enhanced one-number services are available to allow a single cellular telephone to operate with multiple systems. In this arrangement, all telephone calls are transferred to (or follow) a single cellular telephone. While enhanced one-number services transfer calls to a single cellular telephone, they do not transfer awaiting messages.

In public wireless systems, it is desirable to reduce air time usage, and therefore reduce air time charges, and in private wireless systems, it is desirable to reduce congestion on an internal network and to improve usability. Finally, a system which provides simplified mobile message notification and reception is desirable.

SUMMARY OF THE INVENTION

According to the invention, a system and method for automatically notifying a user of an awaiting message are provided. A wireless communication system including an identification means is utilized. The identification means identifies a registered user of the wireless communication system. A mail notification system is used for notifying the registered user of an awaiting message. A communication means checks for awaiting messages for the identified registered user. If an awaiting message is present, the communication means triggers the mail notification system.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 illustrates an example of a communication environment for one embodiment of the present invention; and

FIG. 2 is a process flow chart for an embodiment of the present invention.

DETAILED DESCRIPTION

The present invention provides for automatically notifying a user of an awaiting message and for playing that message for the user in a wireless communication environment. This invention applies to any type of multimedia message (e.g., voice message, e-mail message, video message, facsimile message, etc.). In the detailed description below, the present invention is applied to voice messages (or voice mail).

FIG. 1 illustrates an example of a communication environment for one embodiment of the present invention. In the preferred embodiment, the present invention checks for an awaiting message(s) whenever a user **10** with activated cellular telephone **12** moves into an "in-range" area **20** of a remote wireless base station **22**. Wireless provider/carrier base station **22** includes a transmitter and a receiver for wireless communication. Wireless communication provider/carrier system **30** is then contacted by wireless base station **22**. Wireless base station **22** provides wireless communication system **30** with the registration identification number assigned to cellular telephone **12**. Either wireless base station **22** or wireless communication system **30** performs a check on the cellular telephone's registration identification number. These checks are normally done to confirm that cellular telephone **12** has a valid account (e.g., owned by a legitimate, registered user).

Wireless communication system **30** then uses the registration identification number to check its message mail registration table **32** and to determine if user **10** has an associated mailbox(es) **34**. Hence, wireless communication system **30** uses the cellular telephone identification number to associate cellular telephone **12** with a particular message mailbox **34**, or with multiple message mailboxes **34, 42, 52**. In one embodiment of the present invention, multiple message mailboxes **34, 42, 52** are checked for awaiting messages. When an awaiting message is present in any of multiple message mailboxes **34, 42, 52**, the user is automatically contacted. The messages from all of these multiple messaging systems can then be transferred to the user. For example, message mailbox **34** is attached to the cellular network and provided by wireless communication system **30**. Additionally, user **10** may have land-based message mailbox **42** through a PBX message system **44** located at the user's office **40** and another land-based message mailbox **52** through a central office **50** which provides messaging services to user's home system **60**.

After associated message mailboxes **34, 42, 52** are found, wireless communication system **30** sends a query to message mailboxes **34, 42, 52** to determine if any awaiting messages are present. If there are messages present, wireless communication system **30** notifies the user of the awaiting messages. This notification can be done, for example, by sending a message for display on cellular telephone **12** or by placing a telephone call to cellular telephone **12**. If a telephone call is placed to cellular telephone **12**, user **10** can be offered the option of connecting to the message mailbox(es) with awaiting messages immediately.

After a user is "in-range" of wireless base station **22**, wireless communication system **30** can continue to provide this service by either regularly polling the messaging system (s), or by having the messaging system(s) notify it if any new messages for user **10** arrive. If regular polling is used, wireless communication system **30** contacts messaging sys-

tems **34**, **42**, **52** after a predetermined waiting period. This contacting, waiting and then contacting again continues until user **10** leaves area **20** or cellular telephone **12** is turned off.

In another embodiment of the present invention, the messaging system is used to contact the user. Once the messaging system is notified by the wireless communication provider that a user is "in-range," the messaging system could place a telephone call to the user for notification purposes. The messaging system could then play the message for the user, if desired.

FIG. **2** is a process flow chart for an embodiment of the present invention. At step **100**, a user with an activated cellular telephone arrives in an area covered by a wireless base station. At step **102**, the system recognizes the user's cellular telephone. Standard registration techniques are used for recognizing the cellular telephone. At step **104**, the system checks for message mailbox registration. If no mailboxes are registered for that user, the process ends. If a mailbox (or mailboxes) is registered, the system moves on to step **106**. At step **106**, the system queries the registered message mailbox(es). If no messages are present, the system waits a predetermined amount of time (e.g., 30 minutes) at step **108**. At step **110**, the system checks if the user is still "in-range." If the user is out-of-range, the process ends. Also, if the cellular telephone is turned off, the process ends. If the user is in-range, the system returns to step **106**. The system checks again for messages at step **106**. If messages are waiting for the user, the system collects the message(s) at step **112**. Step **112** is optional. For example, if the user's messaging system(s) is used to contact the user about awaiting messages, the system does not need to collect the message(s).

At step **114**, the user is contacted regarding the awaiting message(s). This contacting can be done by either the wireless communication provider or each of the user's messaging systems. As stated above, this contacting can be done by providing information on the display of the user's cellular telephone or by calling the user's cellular telephone. If information is provided on the display of the cellular telephone, this information can include which of the user's messaging systems contains the awaiting message. Thus, the user could then directly call the appropriate messaging system. At step **116**, the system determines if the user wants to play the awaiting message(s). This can be done by the user, for example, by entering a code into the user's cellular telephone or by answering prompts provided by the telephone call which notifies the user of the awaiting messages. If the user wants to play the awaiting message(s), the system plays the messages at step **118**. This is done by either playing the collected messages or by connecting the user to the messaging system which contains the awaiting message. The system waits a predetermined amount of time at step **108**. The system then checks if the user is still in-range at step **110**. If the user is still in range, the system returns to step **106** and checks for messages. If the user does not want to play the awaiting message(s) the system moves directly to step **108** and waits.

The user can interact with the present system. For example, by calling a special telephone number or by entering a code into the cellular telephone, the user can disable the present system or change the parameters of the present system. To change the parameters, the user could, for example, change the predetermined amount of time the system waits before rechecking for messages. In the preferred embodiment, the process shown in FIG. **2** continues until the user is out-of-range or the cellular telephone is turned off. Also, the process shown in FIG. **2** repeats itself

whenever a user comes in range of a wireless base station. Therefore, the system follows the user from station to station.

The present invention can be applied in an in-building wireless system. For example, some offices have wireless systems which allow their employees to move inside buildings or around campases (i.e., clusters of buildings in close proximity) while remaining connected to their PBX or central office with a wireless connector. With the present invention, users within a building or campus area would be treated as thought they were in-range of a wireless base station. Furthermore, these in-building wireless systems are often limited in channel capacity such that application of the present invention would dramatically reduce congestion.

The present invention provides numerous advantages. For example, by providing for automatic contact when an awaiting message is present, the user makes fewer telephone calls. This occurs because the user does not need to periodically check for awaiting messages. The periodic polling of multiple messaging systems can result in many unnecessary telephone calls. In public wireless systems, air time usage is reduced. Thus, air time charges are reduced. Similarly, in private wireless systems, congestion on the internal network is reduced and usability is improved. Additionally, enhanced security is provided by the present invention. This occurs because the cellular telephone's hardware registration identification number can be used as an added requirement for accessing a user's message(s). The user's password could be eliminated, but in the preferred embodiment, both the registration identification number and the user's password are required for access to awaiting message(s).

We claim:

1. A system for automatically notifying a user of an awaiting message, comprising:

identification means for identifying a registered user of a wireless communication system, the identification means being located in the wireless communication system;

mail notification means for notifying the registered user of an awaiting message; and

communication means for checking for awaiting messages in multiple mailboxes associated with the registered user, and for triggering the mail notification means if an awaiting message is present, wherein the multiple mailboxes being located in multiple messaging systems.

2. The system for automatically notifying a user of an awaiting message of claim **1**, wherein the communication means checks each of the multiple mailboxes on a periodic basis.

3. The system for automatically notifying a user of an awaiting message of claim **1**, wherein the mail notification means is a voice mail notification system.

4. The system for automatically notifying a user of an awaiting message of claim **1**, wherein the mail notification means connects the registered user with a mailbox in a messaging system containing the awaiting message.

5. The system for automatically notifying a user of an awaiting message of claim **1**, wherein the mail notification means collects the awaiting message and gives the registered user the option of listening to the awaiting message.

6. The system for automatically notifying a user of an awaiting message of claim **5**, wherein the identification means identifies a registration number, and wherein both the registration number and a password are needed for listening to the awaiting message.

7. The system for automatically notifying a user of an awaiting message of claim 1, wherein the registered user can interact with the system and disable the system.

8. The system for automatically notifying a user of an awaiting message of claim 1, wherein a telephone call is placed to the registered user, the telephone call notifying the registered user of the awaiting message.

9. A method for automatically notifying a user of an awaiting message, comprising the steps of:

a) recognizing a cellular telephone, the recognizing using a registration number of the cellular telephone, the registration number identifying a user;

b) checking for mailboxes associated with the user;

c) checking for awaiting messages in the mailboxes if the mailboxes exist, wherein the mailboxes are located in multiple messaging systems; and

d) contacting the user with information related to the awaiting message if the awaiting message is present.

10. The method for automatically notifying a user of an awaiting message of claim 9, further comprising the step of collecting the awaiting message if the awaiting message is present.

11. The method for automatically notifying a user of an awaiting message of claim 10, further comprising the step of playing the collected messages for the user.

12. The method for automatically notifying a user of an awaiting message of claim 9, further comprising the step of repeating steps c) and d) periodically until the user is out-of-range.

13. The method for automatically notifying a user of an awaiting message of claim 9, wherein a mailbox registration table is used when checking for the mailboxes.

14. The method for automatically notifying a user of an awaiting message of claim 9, further comprising the step of connecting the user to the mailbox with the awaiting message.

15. The method for automatically notifying a user of an awaiting message of claim 9, wherein the user is contacted by placing a telephone call to the cellular telephone.

16. The method for automatically notifying a user of an awaiting message of claim 9, wherein the messages are voice mail messages.

17. The system for automatically notifying a user of an awaiting message of claim 1, wherein the multiple messaging systems include at least one of a PBX, a central office and the wireless communication system.

* * * * *

Request for Ex Parte Reexamination of U.S. Patent No. 5,889,839

Exhibit OTH-B

Research In Motion Limited's Opening Claim Construction Brief, filed April 17, 2008, Docket No. 43 in Research In Motion Limited v. Visto Corporation, U.S. District Court for the Northern District of California, Case No. 3:07-CV-03177-MMC

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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

RESEARCH IN MOTION LIMITED, Plaintiff, v. VISTO CORPORATION, Defendant. AND RELATED COUNTERCLAIMS	Case No. C-07-3177 (MMC) **RESEARCH IN MOTION LIMITED'S OPENING CLAIM CONSTRUCTION BRIEF** Date: June 16, 2008 Time: 9:00 a.m. Before: Hon. Maxine M. Chesney

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I. INTRODUCTION

Pursuant to Patent Local Rule 4-5(a) and the Court's Case Management and Docket Control Order (Docket No. 22), Research In Motion Limited ("RIM") hereby presents the factual and legal support for its constructions of the three terms from U.S. Patent No. 5,889,839 ("the '839 Patent") that Visto Corporation ("Visto") contends require construction.

These three terms should take their ordinary meaning and do not require construction. The asserted claims of the '839 Patent are straightforward and easily-understood. In particular, the terms Visto has placed at issue use simple language whose ordinary meaning to one of skill in the art is readily apparent. Should the Court decide that these terms require additional construction, RIM proposes definitions that reflect the ordinary meaning of the terms that one of ordinary skill in the art would assign them in light of the intrinsic record. See Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). RIM's proposed constructions are supported by, and make sense in light of, the claims, the specification, and the prosecution history, and they simplify the claim language to the extent possible.

On the other hand, Visto's proposed constructions are lengthy and convoluted. They are an effort to create non-infringement arguments, and will make the claims more confusing for the fact finder. Visto's proposed constructions are also inconsistent with the intrinsic record and the maxims of claim construction. Most notably, Visto's proposed constructions commit one of the "cardinal sins" of claim construction by adding limitations from specific embodiments into the claims. See Phillips, 415 F.3d at 1320.

For example, RIM has asserted claims 9-13 of the '839 Patent that go to "[a] **method** for automatically notifying a user of an awaiting message." The asserted claims do not go to a **system** for implementing the invention. Cf. '839 Patent at claim 1 ("A system for automatically notifying a user of an awaiting message."). But, for each of the three terms at issue, Visto attempts to transform RIM's asserted method claims into system claims by requiring the claim term or step be performed by specific structures: a wireless carrier or cellular telephone system—the latter of which is not a term used in the patent.

The Court should find that the terms at issue do not require construction because the intrinsic record shows that they take their ordinary meaning.[1] If the Court decides that these terms require construction, it should reject Visto's convoluted proposals, which impermissibly seek to narrow the claims, and adopt RIM's straightforward constructions, which follow the Federal Circuit's precedent for claim construction.

II. BACKGROUND

A. History of the Litigation

RIM filed this patent infringement lawsuit on June 15, 2007 to stop Visto's infringement of the '839 Patent. On September 18, 2007, Visto filed a patent infringement counterclaim. On February 26, 2008, the Court stayed Visto's patent counterclaim pending reexamination of Visto's patents by the U.S. Patent and Trademark Office. The present Markman proceedings concern three terms from RIM's '839 Patent that Visto contends require construction.

B. The '839 Patent

The '839 Patent provides a convenient and inexpensive way for people who have mailboxes in multiple messaging systems to receive wireless notification of new messages. In 1996, it was becoming common for people to have several different message mailboxes. '839 Patent at 1:14-17. For example, a user might have email and voicemail at work, voicemail at home, and personal email with an Internet Service Provider, such as Compuserve or AOL. At the time, a user had to check each of these mailboxes throughout the day for new messages. Id. at 1:18-24. If the user failed to check every mailbox, an important message might be missed. Id. at 1:31-33. Repeated checking of multiple mailboxes wasted time and, when using a wireless device, wasted money in airtime charges. Id. at 1:46-50.

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[1] If the Court agrees that the terms at issue do not need to be construed, RIM asks the Court to expressly hold that Visto's proposed added limitations are not incorporated into the terms and to instruct the jury accordingly. See O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., Nos. 2007-1302, 2007, 1303, 2007-1304, 2008 WL 878924, at *9 (Fed. Cir. Apr. 3, 2008) (reversing a district court finding that the term "only if" needed no construction when the parties disputed whether there could be exceptions to the condition, which resulted in the parties submitting the legal issue of claim construction to the jury).

The invention of the '839 Patent solved these problems by providing both a system and a method for automatically checking all of a user's mailboxes and notifying the user of new messages via a cellular telephone. '839 Patent at 1:59-64. As a result, the user no longer needed to check each mailbox for new messages. In some embodiments of the invention, new messages could also be automatically collected and presented on the user's cellular telephone. Id. at 3:26-32.

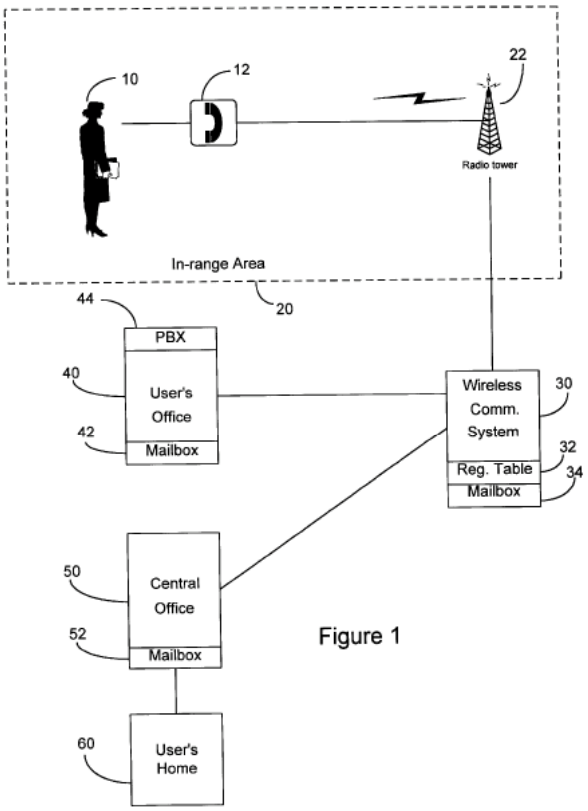


Figure 1

Figure 1 from the '839 Patent shows an apparatus for checking multiple voice mailboxes according to one embodiment of the invention. '839 Patent at 1:66-67. In this embodiment, a wireless communications system implements the claimed invention. When the user's cellular telephone is in range of a radio tower (22), the wireless communications system (30) recognizes the cellular telephone using a "registration identification number," which identifies the telephone and its user. Id. at 2:25-28. In this embodiment, the wireless communications system recognizes the cellular telephone and user using standard registration techniques. Id. at 3:15-16.

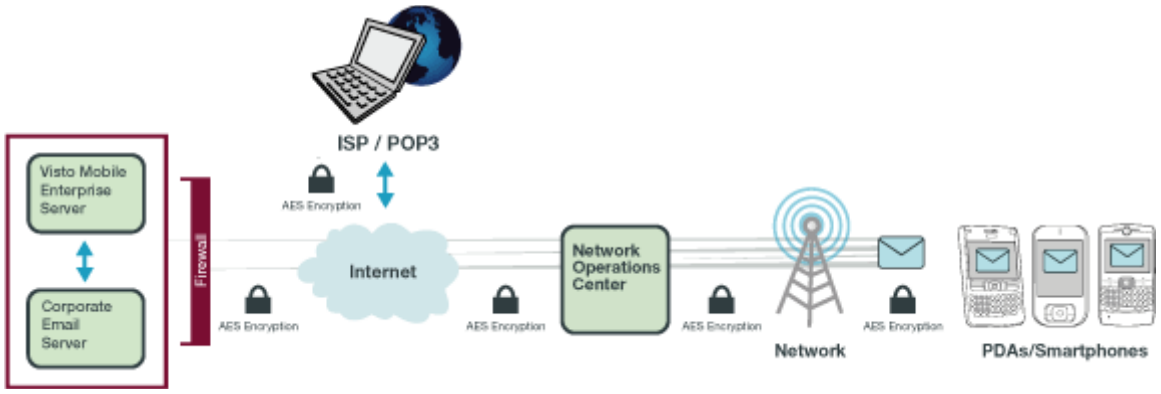
Once the wireless communication system recognizes the cellular telephone, the system checks the mailbox registration table (32) to identify the mailboxes associated with the user. '839

Patent at 2:31-34. In the embodiment of Figure 1, the user has an office mailbox (42), a home mailbox (52), and a wireless mailbox (34). Id. at 2:44-50. After the system identifies the user's mailboxes, it checks them for new messages. Id. at 2:51-54. If the system finds any new messages, it notifies the user. Id. at 2:54-55. This can be done by displaying information about the new messages on the user's cellular telephone or by calling the telephone and providing a voice notification. Id. at 2:56-61 and 3:36-41. According to another embodiment, the wireless network can continue to check for new messages as long as the user is within range of the wireless network. Id. at 2:61-66.

The '839 Patent specification provides detailed descriptions of various embodiments of the invention using a wireless communications system for checking multiple voice mailboxes and notifying the user of new messages on a cellular telephone. '839 Patent at 2:10-12. Although the detailed description is limited to voicemail, the specification clearly states that the invention applies to any type of multimedia message, including "voice message[s], e-mail message[s], video message[s], facsimile message[s], etc." Id. at 2:8-12.

C. The Accused Products

Visto sells a product and service called Visto Mobile that allows a user to receive email from multiple mailboxes on a wireless device. Visto Mobile can retrieve email from mailboxes on corporate email servers, such as Lotus Notes or Microsoft Exchange, and mailboxes provided by Internet email services, such as Gmail and MSN Hotmail. (Christofferson Decl. Ex. A ("VMEE Data Sheet") at 1.) There are three editions of Visto Mobile: The Enterprise Edition and Personal Edition check both Internet and corporate mailboxes, while the Internet Edition checks only Internet mailboxes.



The figure above, taken from Visto's website, shows the parts of the Visto Mobile system and how they work together. See http://www.visto.com/products/VMEE_diagram.asp. The user's smartphone or PDA is shown on the right. (Christofferson Decl. Ex. B ("Visto White Paper") at 3.) The email servers that store the user's mailboxes are shown on the left. These include the "ISP / POP3" ("Internet") email servers, such as Gmail and MSN Hotmail, as well as the Corporate Email Server. The Corporate Email Server is protected from unauthorized users by a firewall.

The Network Operations Center sits between the smartphones and the email servers. The Network Operations Center is connected to the smartphones through the wireless network (depicted by the radio tower) and to the email servers through the Internet (depicted by the cloud). The Network Operations Center allows the system to function by directing traffic between the smartphones and the email servers. (Visto White Paper at 3.) The Network Operations Center is also directly responsible for checking the Internet mailboxes for new messages. (Id.)

The Visto Mobile Enterprise Server is shown on the left side of the figure alongside the Corporate Email Server.[2] Because the firewall prevents the Network Operations Center from checking mailboxes on the Corporate Email Server, the Enterprise Server is installed behind the firewall to check the user's corporate mailbox and notify the user of new messages. (Visto White Paper at 2.)

[2] In the Personal Edition, a program called the Desktop Access Connector replaces the Enterprise Server. In other respects, the two programs work similarly.

When a smartphone is turned on or enters the range of the wireless network, the Network Operations Center authenticates the smartphone using its Mobile Subscriber Integrated Services Digital Network ("MSISDN") Number and a password. (Visto White Paper at 20.) Once it has authenticated the smartphone, the Network Operations Center identifies the corporate and Internet mailboxes associated with the smartphone's user. (Id. at 29.) The Network Operations Center and the Visto Enterprise Server then periodically check the user's Internet and corporate mailboxes respectively for new messages. When the user receives a message, the Network Operations Center or Enterprise Server collects it and delivers it to the user's smartphone. (Id. at 19.)

III. LEGAL PRINCIPLES OF CLAIM CONSTRUCTION

Claim construction is one of the most important phases of a patent infringement lawsuit. See Phillips, 415 F.3d at 1312. The claims of the patent define the scope of the invention and the patentee's right to exclude. Markman v. Westview Instruments, Inc., 52 F.3d 967, 990 (Fed. Cir. 1995), aff'd, 517 U.S. 370 (1996). During claim construction, the district court has "the power and obligation to construe as a matter of law the meaning of language used in the patent claim." Id. at 979.

Words of a claim are generally given their "ordinary and customary meaning . . . to a person of ordinary skill in the art." Phillips, 415 F.3d at 1313. There is a "heavy presumption" that claims carry their ordinary and customary meaning. CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1366 (Fed. Cir. 2002). "In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words." Phillips, 415 F.3d at 1314.

The ordinary meaning to one skilled in the art should be informed by, and cannot be inconsistent with, the intrinsic record, namely the claims, the specification, and the prosecution history. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). ("It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history."). The Federal Circuit, however, has warned courts against committing one of

the "cardinal sins" of claim construction: "reading a limitation from the written description into the claims." Phillips, 415 F.3d at 1320, 1323 ("For instance, although the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments.").

The prosecution history is "the complete record of the proceedings before the PTO and includes the prior art cited during the examination of the patent." Phillips, 415 F.3d at 1317. Statements made during prosecution by the patentee may shed light on the meaning of claim terms. Id. The Federal Circuit has limited the importance of the prosecution history, as compared to the specification: "because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes." Id. at 1317. Furthermore, the prosecution history should only limit the scope of the claims when there has been a clear disavowal of claim scope by the patentee. SunRace Roots Enters. Co. v. SRAM Corp., 336 F.3d 1298, 1306 (Fed. Cir. 2003); see also York Prods., Inc. v. Cent. Tractor Farm & Family Ctr., 99 F.3d 1568, 1575 (Fed. Cir. 1996) ("a patent applicant only limits claims during prosecution by clearly disavowing claim coverage").

Extrinsic evidence, such as expert testimony and dictionaries, may be relevant to the claim construction inquiry. Phillips, 415 F.3d at 1318. The Federal Circuit, however, has cautioned against using extrinsic evidence to construe a claim in a way that is inconsistent with the intrinsic record. Id.

The accused products are also relevant to the claim construction process. Wilson Sporting Goods Co. v. Hillerich & Bradsby Co., 442 F.3d 1322, 1331 (Fed. Cir. 2006). The claims may be read in the context of the accused products. Id. Although a court cannot use the accused products to "bias[] the claim construction process to exclude or include specific features of the accused product[s]," a court may use the accused products "to supply the parameters and scope of the infringement analysis, including its claim construction component." Id.

IV. THE PROPER CONSTRUCTION OF THE DISPUTED CLAIM TERMS

A. "Recognizing a Cellular Telephone, the Recognizing Using a Registration Number of a Cellular Telephone, the Registration Number Identifying a User"

Claim Term	RIM's Proposed Construction	Visto's Proposed Construction
recognizing a cellular telephone, the recognizing using a registration number of the cellular telephone, the registration number identifying a user (claim 9)	ordinary meaning; or, if construed: recognizing a cellular telephone using a registration number that identifies a user	In a cellular telephone system, identifying a cellular telephone by obtaining its hardware registration identification number and checking to confirm that a valid user account is associated with the telephone.

RIM does not believe this claim term needs to be construed. If the Court decides to construe this term, RIM proposes the following construction: "recognizing a cellular telephone using a registration number that identifies a user."

This claim term, appearing only in claim 9, comprises the first step in the claimed method for "automatically notifying a user of an awaiting message." Because the automatic notification is sent to a cellular telephone, the first step is to recognize a cellular telephone to be notified and identify its user. The user's identity is used in the next step of the method to identify the user's mailboxes so that they can be checked for new messages.

The ordinary meaning of this claim language is "readily apparent," and its construction should "involve[] little more than the application of the widely accepted meaning of commonly understood words." Phillips, 415 F.3d at 1314. RIM's construction is consistent with this ordinary meaning, which simply requires recognizing the cellular telephone with a registration number that can identify the telephone's user. '839 Patent at claim 9. Consistent with the claim language, RIM's construction specifies no apparatus for performing this step. RIM's construction is supported by the specification, which teaches that "[a]t step 102, the system recognizes the user's cellular telephone." Id. at 3:14-15. The prosecution history does not address this step of the method.

Visto's proposed construction improperly imports three limitations from the specification. None of these limitations are based on the claim language, and they should all be rejected.

1. Visto's Attempt to Limit the Method to a "Cellular Telephone System"

The first limitation Visto imports from the specification is a requirement that the "recognizing" step be performed by a "cellular telephone system." Visto's proposed limitation is inappropriate because (1) it is an improper structural restriction on a method claim; and (2) it impermissibly narrows the described invention.

First, Visto's proposed limitation has no support in the claim language. This Court has recognized that it is inappropriate to restrict method claims to a particular apparatus. N. Telecom Ltd. v. Samsung Elecs. Co., No. C-95-449 MHP, 1996 WL 532122, at *13 (N.D. Cal. Sept. 16, 1996) ("The Ingrey patent is a process patent, not a patent on a particular apparatus. In a process patent, apparatus distinctions that are not specifically claimed are not controlling in determining the scope of the claims."); see also Moba, B.V. v. Diamond Automation, Inc., 325 F.3d 1306, 1314 (Fed. Cir. 2003) ("This court has discredited an infringement analysis for method claims that examines distinctions between implementing apparatuses.").

Claim 9 is a method claim that sets forth steps for performing the claimed invention—it does not state what apparatus performs those steps. In contrast, the applicants claimed a system for carrying out the invention in claims 1 through 8. In claim 1, the applicants expressly require the "identification means" for performing the step of "identifying a registered user" to be located in a "wireless communications system." The fact that claim 9 does not expressly require any structural limitation demonstrates that the applicants did not intend to limit the method claim to a specific apparatus.

More specifically, the "recognizing" step in claim 9 does not require a "cellular telephone system." Although Visto may contend that a "cellular telephone system" is described in the specification, embodiments from the specification cannot be read into the claims. Phillips, 415 F.3d at 1323 ("[A]lthough the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments."). The specification describes the general nature of the invention, but does not "expressly limit[] ***all*** embodiments of the claimed invention" to operate within any particular system. Scimed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1339 (Fed. Cir. 2001).

Second, to the extent Visto attempts to restrict the apparatus for performing the method (which the claim does not require), the term "cellular telephone system" is unduly restrictive. "Cellular telephone system" does not appear in the claims, the specification, or the prosecution history to describe the claimed invention. The specification uses the terms "wireless communications system" and "wireless communications environment" in describing embodiments for performing the "recognizing step." The '839 Patent explains that the wireless communications system and environment of the invention apply to any type of multimedia message:

> The present invention provides for automatically notifying a user of an awaiting message and for playing that message for the user in a wireless communication environment. This invention applies to any type of multimedia message (e.g., voice message, e-mail message, facsimile message, etc.).

'839 Patent at 2:5-10. Visto's proposed addition should be rejected because it adds a new term, "cellular telephone system," of uncertain scope, which was never used by the patent applicants to describe their invention in the intrinsic record.

Visto's attempt to import a structural limitation from the specification into the recognizing step is contrary to the claim language and the specification and is improper under Federal Circuit precedent.

2. Visto's Attempt to Limit the Method to Using a "Hardware Registration Identification Number"

The second limitation Visto imports from the specification is a requirement that the "recognizing" step must "**identify[] a cellular telephone** by its **hardware registration identification number**." This requirement is contrary to the language of claim 9, which "recognize[s] a cellular telephone . . . using a registration number . . . **identifying a user**."

Cellular telephones may contain several different registration numbers, including a number that identifies the telephone hardware (such as a serial number) and a different number that identifies the wireless service subscriber and his account (such as a telephone number). The specification only uses a "hardware registration identification number" in conjunction with a password for security purposes. '839 Patent at 4:26-28 ("[T]he cellular telephone's hardware registration identification number can be used as an added requirement for accessing a user's message(s).").

Claim 9 does not claim use of a "hardware registration identification number" for "identifying a cellular telephone." Claim 9 requires a "registration number" for "identifying a user." Any registration number that identifies the user will suffice for claim 9, and Visto's attempt to limit the registration number to that used in a specific embodiment is improper.

3. Visto's Attempt to Add the Step "Checking to Confirm That a Valid User Account is Associated with the Telephone" to the Method

The third limitation Visto imports from the specification is an entirely new step that is not present in claim 9: "checking to confirm that a valid user account is associated with the telephone." This requirement is inconsistent with the claim language and the specification.

Claim 9 does not require a check to confirm that the user has a valid account and does not require that the user be a "registered user." Rather, claim 9 merely requires that the cellular telephone be recognized using any registration number that can identify the telephone's user.

The specification discloses an embodiment that checks the registration identification number of the cellular telephone to determine if the user has a valid account:

> Either wireless base station 22 or wireless communication system 30 **performs a check** on the cellular telephone's registration identification number. These checks are normally done **to confirm that cellular telephone 12 has a valid account** (e.g., owned by a legitimate, registered user).

'839 Patent at 2:25-30 (emphasis added). This extra requirement cannot be imported from the specification into the claim. Moreover, even the specification discloses that the check is an optional procedure. Id. at 2:25-30 ("These checks are **normally** done . . . .") (emphasis added).

The three limitations that Visto seeks to import into this disputed term are inconsistent with the intrinsic record, and the Court should reject them. The language of this claim step is straightforward, and thus, the term does not require construction. If the Court decides to construe this term, it should adopt RIM's proposed construction, which reflects the ordinary meaning of the claim term consistent with the intrinsic record.

B. "Checking for Awaiting Messages in the Mailboxes"

Claim Term	RIM's Proposed Construction	Visto's Proposed Construction
checking for awaiting messages in the mailboxes (claim 9)	ordinary meaning; or, if construed: sending a query to each message mailbox to determine if any awaiting messages are present	The wireless carrier monitoring for awaiting messages in voice mailboxes belonging to the identified registered user associated with the cellular telephone's hardware registration identification number.

RIM does not believe this claim term requires construction. If the Court decides to construe this term, RIM proposes the following construction: "sending a query to each message mailbox to determine if any awaiting messages are present."

This claim term is the third step in claim 9's method for "automatically notifying a user of an awaiting message." The first step of the method is "recognizing a cellular telephone" using a "registration number identifying a user." The second step is "checking for mailboxes associated with the user." This third step is "checking" each of those mailboxes for "awaiting messages." The fourth and final step is "contacting the user" if there are any "awaiting messages."

This method step, like the "recognizing" step above, has an ordinary meaning that can be discerned by lay persons. Thus, construction of this claim should again "involve[] little more than the application of the widely accepted meaning of commonly understood words." Phillips, 415 F.3d at 1314. RIM's construction reflects this ordinary meaning of the claim. RIM's construction is supported by the specification, which teaches in an embodiment: "After associated message mailboxes 34, 42, 52 are found, wireless communication system 30 **sends a query to message mailboxes** 34, 42, 52 **to determine if any awaiting messages are present**." '839 Patent at 2:51-54 (emphasis added). RIM's construction is further supported by the prosecution history: "Claims 1 and [9] state that multiple mailboxes are checked for awaiting messages." (Christofferson Decl. Ex. C ("July 28, 1998 Amendment") at 5 (emphasis added)).

Visto's proposed construction reads four limitations from the specification into this step. None of these limitations are reflected in the claim language, and none are properly part of this method step. Accordingly, the Court should reject them all.

1. Visto's Attempt to Limit the Method to a "Wireless Carrier"

The first limitation Visto imports from the specification is a requirement that a "wireless carrier" must "monitor for awaiting messages." Visto's proposed limitation is inappropriate because (1) it is an improper structural restriction on a method claim; and (2) it is an improper attempt to read a feature of an embodiment into the claim.

First, Visto's proposed limitation has no support in the claim language. Claim 9 is a method claim that sets forth steps for performing the claimed invention; it does not specify the apparatus for performing those steps. As discussed above in Section IV.A.1, this Court has recognized that it is inappropriate to restrict method claims to a particular structure. N. Telecom, 1996 WL 532122, at *13; see also Moba, 325 F.3d at 1314. Second, the claim does not require that the "checking" step be performed by a "wireless carrier," or any specific apparatus. Features of embodiments cannot be read into the claims. Phillips, 415 F.3d at 1323. The specification describes the general nature of the invention, it does not "expressly limit[] ***all*** embodiments of the claimed invention" to operate within any particular system. Scimed, 242 F.3d at 1339 (emphasis added).

2. Visto's Attempt to Change the Step from "Checking" to "Monitoring"

The second limitation that Visto imports from the specification is a requirement that the method must "monitor" the user's mailboxes. To the extent that Visto is attempting to argue that "monitoring" requires periodic polling of the mailboxes, this is inconsistent with the intrinsic record.

Claim 9 covers a single check of the mailboxes and notification of awaiting messages. Claim 12, which depends from claim 9, adds the requirement that the "checking" step and the subsequent "notification" step are performed periodically. Requiring that the method in claim 9 "monitor" the mailboxes would render the additional requirement in claim 12 (i.e., "repeating steps c) [checking] and d) [notifying] periodically") redundant.

Under the doctrine of claim differentiation, "the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim." Phillips, 415 F.3d at 1315; see Saunders Group, Inc. v. Comfortrac, Inc., 492 F.3d 1326, 1331 (Fed. Cir. 2007) (finding that claim 1 did not require a "pressure activated seal" because dependant claim 6 added that requirement). "That presumption is especially strong when

the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one party is urging that the limitation in the dependent claim should be read into the independent claim." SunRace, 336 F.3d at 1303.

The specification supports the understanding that "checking" is a singular act. The described embodiment teaches that once the mailboxes are identified, "wireless communications system 30 sends **a query** to message mailboxes 34, 42, 52 to determine if any awaiting messages are present." '839 Patent at 2:51-54 (emphasis added). The specification further explains that "[a]fter a user is 'in-range' of wireless base station 22, wireless communication system 30 **can continue to provide this service** [of notifying the user of new messages] **by** either **regularly polling** the messaging system(s), **or by having the messaging system(s) notify it** if any new messages for user 10 arrive." Id. at 2:62-66 (emphasis added). Thus, according to the specification the initial "checking" step is performed only once. After that, the invention can in one embodiment (but is not required to) continue "regularly polling" (as claimed in claim 12) to detect new messages. But the invention can also forego further checking and rely on notifications from the messaging systems in a second embodiment.

3. Visto's Attempt to Limit the Method to Voice Mail

The third requirement that Visto imports from the specification limits the method to checking voice mailboxes. This attempt by Visto to limit the scope of the claims to the disclosed embodiments directly contradicts both the claims and the specification.

The language of the claims is general and not limited to voice messages. The specification is not limiting either. The specification discloses a specific embodiment of the invention that checks multiple voice mailboxes. Id. at 2:11-12 ("In the detailed description below, the present invention is applied to voice messages (or voice mail)."). But, the patent expressly states that "[t]his invention applies to **any type of multimedia message** (e.g., voice message, e-mail message, video message, facsimile message, etc.)." Id. at 2:8-10 (emphasis added). Visto's proposed construction is contrary to Federal Circuit precedent, which has "expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment." Phillips, 415 F.3d at 1323.

Outside of the detailed description of the embodiments, the specification does not limit the invention to voice messages. Instead, it consistently refers to "message notification" from "messaging systems": The title of the patent is "System and Method for Providing Automated **Message Notification** in a Wireless Communication System." The Abstract states that "[a] system and method are provided for automatically notifying a user of **an awaiting message**." '839 Patent at Abstract (emphasis added). The Field of the Invention states that the invention is concerned with "**messaging system[s]**." Id. at 1:8-9 (emphasis added). The Background of the Invention states that "voice mail messaging systems" is merely one example of general "messaging systems." Id. at 14-15 ("**Messaging systems** are common in both public and private areas. **For example, voice mail messaging systems** are located in almost every office environment and in many private homes.") (emphasis added).

Visto's position is not only inconsistent with the language of the claims and the specification, but it also violates the doctrine of claim differentiation. Claim 16, which depends on claim 9, adds the additional requirement that "the messages [of claim 9] are voice mail messages." Under the doctrine of claim differentiation, "the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim." Phillips, 415 F.3d at 1315. Independent claim 9 uses the term "message" but does not expressly require a "voice message." Claim 16 recites the method of claim 9 and then adds the requirement that "the messages are voice mail messages." Under these circumstances, it is improper to include the "voice mailboxes" limitation into claim 9, thereby rendering claim 16 redundant. See also Section IV.B.2.

4. Visto's Attempt to Limit the Method to Checking for "Mailboxes Belonging to the Identified Registered User Associated Associated with the Cellular Telephone's Hardware Registration Identification Number"

The fourth limitation that Visto imports from the specification is a requirement that the method must check for mailboxes "belonging to the identified **registered user** associated with the cellular telephone's **hardware registration identification number**." As discussed above, it is inappropriate to limit the "registration number" in this claim to a "hardware registration

identification number." See Section IV.A.2. It is also inappropriate to limit the user to a "registered user" in this step. Claim 1 includes an "identification means for identifying a registered user." In contrast, claim 9 recognizes a cellular telephone and a user in the first step, which does not require checking if the user has a valid account on a wireless communications system. See Section IV.A.3.

Further, Visto's construction is inconsistent with the claim language because this third step is the incorrect place to identify the user's mailboxes. The method of claim 9 determines the mailboxes to check for awaiting messages in the prior step: "checking for mailboxes associated with a user." Thus, "mailboxes" in this step refer to the "mailboxes associated with a user" from the prior step. Visto's proposed construction attempts to change the meaning of the term "checking mailboxes associated with a **user**" to "checking mailboxes associated with a **cellular telephone**." The ordinary meaning of the claims and the entire purpose of the invention is to check a user's mailboxes—not mailboxes associated with the cellular telephone's serial number.

The four limitations Visto seeks to import into this method step are improper and the Court should reject them. The words used in this claim step are straightforward, and thus, this term does not need construction. If the Court decides to construe this term, it should adopt RIM's definition, which reflects the ordinary meaning of the term in light of the intrinsic record.

C. Mailbox(es)

Claim Term	RIM's Proposed Construction	Visto's Proposed Construction
mailbox(es) (claims 9, 13, 14)	ordinary meaning; or, if construed: message storage location(s)	An electronic data storage location, provided by the cellular telephone system, for voice messages associated with a valid user account.

RIM does not believe this claim term requires construction. If the Court decides to construe this term, RIM proposes the following construction: "message storage locations."

Consistent with ordinary understanding, a mailbox is a location where messages are stored. A mailbox may store any type of message including voice and email messages. This construction is supported by the intrinsic record. The specification states that "[t]his invention applies to any type of multimedia message (e.g., voice message, e-mail message, video message, facsimile message, etc.)." '839 Patent at 2:8-10.

Extrinsic evidence also supports RIM's construction. The Federal Circuit has "especially noted the help that technical dictionaries may provide to a court 'to better understand the underlying technology' and the way in which one of skill in the art might use the claim terms." Phillips, 415 F.3d at 1318 (quoting Vitronics, 90 F.3d at 1584 n.6). This is "[b]ecause dictionaries, and especially technical dictionaries, endeavor to collect the accepted meanings of terms used in various fields of science and technology, those resources have been properly recognized as among the many tools that can assist the court in determining the meaning of particular terminology to those of skill in the art of the invention." Id. The McGraw-Hill Dictionary of Scientific and Technical Terms defines "mail box" as "**1.** A portion of a computer's main storage that can be used to hold information about other devices. **2.** Computer storage facilities designed to hold electronic mail." (Christofferson Decl. Ex. D.) Both definitions are consistent with the ordinary and customary meaning of mailbox.

Visto, as it has done with the two preceding terms, proposes a construction that improperly adds limitations to the term "mailbox." The first limitation is a structural limitation that is at odds with the specification and the purpose of the invention. The other two limitations represent efforts by Visto to read features from embodiments described in the specification as claim limitations. All three limitations are inappropriate and should be rejected.

1. Visto's Attempt to Require "Mailbox(es)" to be Provided by a "Cellular Telephone System"

The first limitation Visto attempts to add is that any "mailbox" must be a storage location "provided by the cellular telephone system." This proposed restriction should be rejected because it is inconsistent with the claim itself. The claim requires the mailboxes to be "located in multiple messaging systems." '839 Patent at claim 9. Under Visto's construction, if all the user's mailboxes are provided by a cellular telephone system, then the method of checking for awaiting messages in multiple messaging systems would be rendered nonsensical.

Visto's proposal is also directly contrary to the specification and every embodiment described in it. See, e.g., '839 Patent at Figure 1. The specification teaches that a user may have mailboxes in both public and private messaging systems. Id. at 1:14-17. A user might have mailboxes at home, mailboxes at work, and mailboxes with the wireless carrier. Id. at 2:43–50 ("For

example, message mailbox 34 is attached to the cellular network and provided by wireless communication system 30. Additionally, user 10 may have land-based message mailbox 42 through a PBX message system 44 located at the user's office 40 and another land-based message mailbox 52 through a central office 50 which provides messaging services to user's home system 60."). Two of these three mailboxes are not located in the cellular telephone system. Indeed, the entire purpose of the invention is to check mailboxes in "multiple messaging systems" not simply at the wireless provider. (July 28, 1998 Amendment at 5 ("In the present invention, multiple mailboxes are polled for the user. The wireless carrier is no longer the sole messaging provider.").)

Visto's proposed limitation has no basis in the clam language itself and is directly contrary to the claims, the specification, and the prosecution history.

2. Visto's Attempt to Limit the Claimed Invention to Voice Mailboxes

The second limitation Visto attempts to import from the specification is a requirement that all mailboxes must be "voice" mailboxes. As discussed above, the invention is not limited to voice mail. See Section IV.B.3. The claims cannot be limited to specific embodiments from the specification. Phillips, 415 F.3d at 1323. The intrinsic record does not support Visto's proposed limitation. In fact, the specification expressly states that the invention relates to any type of multimedia message, including email messages. '839 Patent at 2:8–10 ("This invention applies to any type of multimedia message (e.g., voice message, e-mail message, video message, facsimile message, etc.)."). Further, if claim 9 is limited to voice messages, claim 12 (which adds a voice message limitation to claim 9) would be rendered redundant, contrary to the doctrine of claim differentiation. See Section IV.B.3.

3. Visto's Attempt to Require "Mailbox(es)" to be Associated with a Valid Account

The third limitation Visto imports from the specification is a requirement that a mailbox must be associated with a "valid user account." This is similar to the "checking to confirm that a valid user account is associated with the telephone" step that Visto tries to add to the "recognizing a cellular telephone" term. As discussed above, this additional check is not required by the claim. See

Section IV.A.3. The claim contains no language that requires a user to have a "valid" account before the mailboxes are checked. Visto's attempt to add such a limitation is improper and this Court should reject it. Phillips, 415 F.3d at 1323.

The Court should reject Visto three proposed limitations on the term "mailbox" because they are inconsistent with the claims, the specification, and the prosecution history. The term "mailbox" is straightforward, and it does not require construction. If the Court finds that the jury would benefit from a construction, it should adopt RIM's definition which reflects the ordinary meaning of the term consistent with the intrinsic record.

V. CONCLUSION

Because the language used in the claims is clear, and its ordinary meaning is apparent, the Court should decline to construe these terms. Or, if the Court does construe them, the Court should adopt RIM's proposed constructions, which reflect the ordinary and customary meaning of these terms. The Federal Circuit has clearly stated that limitations found in the disclosed embodiments cannot be incorporated into the claims absent clear intent by the applicant to limit the scope of the claims. No such intent was expressed in the intrinsic record, and the Court should reject Visto's repeated attempts to add limitations from the specification into the claim terms.

DATED: April 17, 2008

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RESEARCH IN MOTION LIMITED

CERTIFICATE OF SERVICE

I am employed in the County of Los Angeles, in the State of California. I am over the age of 18 and not a party to the within action. My business address is 777 South Figueroa Street, 37th Floor, Los Angeles, California 90017.

On April 17, 2008, I caused a copy of the following document(s) described as:

RESEARCH IN MOTION LIMITED'S OPENING CLAIM CONSTRUCTION BRIEF

to be served on the interested parties in this action as follows:

[X] [VIA ELECTRONIC MAIL] I caused said document[s] to be sent by electronic mail to the email address(es) indicated for the party(ies) listed below:

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[X] [FEDERAL] I declare that I am employed in the office of a member of the bar of this court at whose direction this service was made.

Executed April 17, 2008, at Los Angeles, California.

/s/ Philip T. Chen
Philip T. Chen